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U. S. Department of Agriculture

'48 Garden Annual

ISBELL SEED STORE 139-141 W. Pearl St. JACKSON, MICHIGAN





Down-to-earth help for garden planners

This seed catalog, we're proud to say, sets a new high record for helpfulness. We believe it contains more real, solid gardening data than any seed catalog we've ever read.

As you'll see, we have crammed this book with FACTS. We've set down here, as far as is humanly possible, the practical answers to the hundreds of questions that every seedsman is asked, every year.

Whether you are an experienced gardener or a beginner, we're sure you'll find much that is helpful in these pages—now and later on. We suggest, then, that you can begin using this book the very day you receive it. Use it first as a guide for your planning—and later, as a guide for more effective action all through the season.

Please note that our seed listings, in all departments are held down to sensible limits. We have selected, with great care, the varieties that we consider most suitable for our area—and we've stopped right there. You may see other catalogs with more voluminous lists, but you won't find any more conscientious selections than ours.

Because of rapidly changing market conditions we must remind you that

**ALL PRICES
IN THIS CATALOG
ARE SUBJECT TO CHANGE
WITHOUT NOTICE**

Again IT'S FLOWERS!

**NOW THE GARDEN PENDULUM
SWINGS BACK TO BEAUTY**



BACHELORS BUTTON, Jubilee Gem (below)—Another All-America winner. Finest of all Bachelor's Buttons for borders or beds. Deep blue, all double. Pkt. 15c.

ASTER, El Monte—A bright crimson Super-Giant Aster. All-American Bronze Medal winner. Striking in garden or for bouquets. Packet 20c.



ZINNIA, Stardust (below)—A Golden Yellow Fantasy that belongs in every garden. Excellent cut flower. All-American. Med. size dbl. flowers. Pkt. 15c.

VERBENA, Lavender Glory—Huge blossoms, true lavender color with creamy-white eyes. All-America award. Distinctly lovely fragrance. Packet 15c.



COSMOS, Sensation—An All-America Silver Medal winner. These huge pink or white flowers will blossom within 10 weeks from seed. Packet 15c.

NON-WARRANTY CLAUSE—Success with seeds, bulbs, etc., depends largely on weather conditions and proper cultivation, so in accordance with the universal custom of the seed trade we give no warranty, express or implied, as to the productiveness of any seeds, bulbs or plants we sell and will not be in any way responsible for the crop. Our liability is limited to the purchase price of the seed, bulbs or plants.

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Hello NEIGHBOR!



Here's a Spring greeting from **YOUR Seed Store**

... a neighborly, friendly and informative message from a seedsman who lives, works, and gardens right in your own home territory.

We are proud to present this book as a message from neighbor to neighbor! We're sure you will find it extremely valuable. But before you plunge into its fascinating pages, we want to say this:

Our job, as we see it, is **to serve the gardeners and growers of our own area**, above all. We work, always, with the needs of our own neighbors' gardens in mind. We know, from experience, exactly what these local needs are. And we choose our stocks carefully and conscientiously to suit these needs.

May we suggest, then, that it is far wiser for gardeners of this area to shop here, rather than to look afar for their garden seeds and supplies?

So—here's to your success! And may we see you soon ... and often!

NOTE—If any of your gardening friends have not received this catalog, and would like to have a copy, just let us know. But please do so early, as the supply is limited. And, incidentally, if you, yourself, have any comments to make on our book (good or bad) we hope you'll let us have them—in person or by letter. We like a pat on the back—and we appreciate constructive criticism, too.

We offer a complete year-round, local garden service

There's a year-round working partnership between us and our gardening customers. They like to shop here, because they know that, whatever the season, we're always ready to counsel with them and to supply all their garden needs.

We offer only good, fresh seeds, packet or bulk

We get along so well with our gardening friends because they know we do everything in our power to bring them the best of seeds, always! A packet or a ton, for home gardener or professional grower, it's always the finest we can procure.

We offer a complete supply service for all gardeners

One excellent reason why you **NEED** the services of a store like ours is the **COMPLETENESS** of our service.

As seed professionals, we know what you'll need at every step of the way. That's why it's so satisfying to shop here for garden supplies.

We offer cheerful and expert garden counsel

Our practical knowledge of gardening is part of our stock in trade. We want all your gardening efforts to be successful, and we try to do all we can to make them so. As "Garden Headquarters" we feel that's part of our job! Come in and talk it over!

LAWN BUILDING . . . HOW? WHEN? WHERE?

Consider Your Soil

In the garden, each spring brings a new chance to add humus or to otherwise improve the tilth of your soil. Once a good sod has been built up, however, the only way you can change the soil under it is by feeding the grass itself. That is why it pays to build up the soil before you begin. Organic matter must be added before work begins. Well-rotted compost, old manure, peat moss, sifted compost and leaf mold are all good forms that will help produce a deep-rooted healthy turf. Note that these must be old and well-rotted—fresh organic matter can damage young grass by rotting and releasing gases in the soil, and by encouraging disease. Spread a layer of organic matter from one to three inches deep over the entire area. Over this, apply 25 to 30 pounds of good mixed fertilizer for every 1,000 square feet, and turn under both organic matter and fertilizer. Grass roots do not go deep on soils with good drainage. There is no need to dig much deeper than five inches. The mixed fertilizer will give the grasses a good start and the humus will help hold moisture, and by slow decay, release small amounts of plant food for years.

Final Soil Preparation

After digging, level the surface with a rake. For large areas, a drag made by tying ropes to both ends of a ladder or heavy timber and dragging this sideways will help cut off the humps and fill the low spots. When as level as possible, divide the seed into two lots. Try to sow on as still a day as possible. Sow one lot of seed with the breeze and the other against. This

will spread the seed more evenly, so that each square foot of lawn will have enough, but not too much seed.

Seeding

A common mistake is to sow too thickly. Grass seedlings will not grow when crowded any more than will seedlings of cabbage or lettuce. At the same time, enough seed should be used to cover the entire area without bare spots. Half a pound of mixed seed to 100 square feet or five pounds to 1,000 square feet is safe for most mixtures, and good lawns can be made with as little as 3 pounds to 1,000 feet if conditions are right.

After sowing, rake the lawn again. Don't keep pulling the rake one way, which will roll over the coarse particles and bury the seed too deeply. Instead, work it back and forth with short strokes, barely coating the seed with dust and soil.

Water with a fine spray as soon as the seed is sown. This is the only time in the life of a lawn that it should be sprinkled or sprayed. At all other times, give it a good soaking whenever watering is needed, but for this first wetting, we want to settle the soil gently around the seed and moisten it enough to start germinating. If the normal soil moisture is enough to keep the lawn just slightly damp, try not to water again until the soil has germinated, but do not let it get dry at any time.

Once the green seedlings are showing over the entire lawn and there is little danger of washing out the soil, water thoroughly if rain does not fall. The first seedlings to show will be the nurse grass, and probably not the grasses that will form the permanent lawn.



Mowing

Don't mow the lawn until it is about three inches high. Then set the mower for a 1½ inch cut (adjust the roller until there is 1½ inches between the bedknife and the floor on which the mower stands). Don't mow a new lawn closer than this—the grass needs this much leaf area if it is to build up strength enough to stool out and form a permanent turf that will survive the coming winter.

Reseeding Bald Spots

Sometimes thin spots will remain in the lawn, particularly if conditions are unfavorable for the permanent grasses. These can be seeded with Italian ryegrass, which will germinate in hot weather, when good grasses will not. With the return of cooler weather in fall, these temporary patches can be raked out and the regular mixture seeded.

To remake established lawns that are in poor shape, rake the thin spots as early in spring as possible, apply 25 pounds of good general fertilizer to every 1,000 square feet, and sow one pound of a good mixture to every 400 to 500 square feet. Rake in the seed and sprinkle. From this point on, treat as a new lawn.

Complete LAWN WEED CONTROL . . . at your command

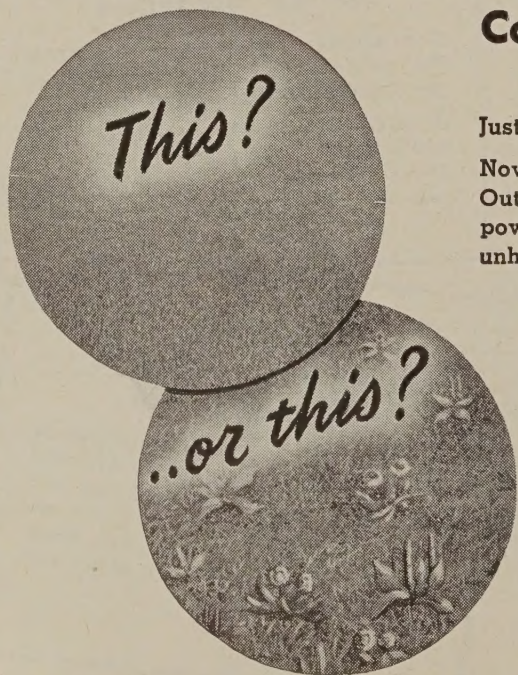
Just a few short years ago, weed-free lawns were a rarity.

Now, almost overnight, weed control has become easy, almost automatic. Out of the laboratories have come new chemicals with the miraculous power to kill the common lawn weeds while leaving the turf itself unharmed.

Today, weeds in the home lawn are completely unnecessary and out-of-date . . . in fact, they may well be classified as just "bad housekeeping."

We are a bit proud of our own part in this modern lawn revolution. Ever since the new weed control chemicals began to appear, we've been prescribing and providing them for the lawns of our area. We know them thoroughly. We can tell you exactly which controls to use—and when. And we have them in stock.

Please be sure, then, to look up the weed killers described later on in this book. And if you have any questions about them, be sure to consult us.





DEPENDABLE LAWN SEEDS

4 - W A Y SERVICE

for your lawn

1—The right seed

The "better lawns" we sell here get their start with the right seed . . . seed carefully selected for the growing conditions of this territory—and for the particular needs of your own lawn.

2—The right foods

Whatever the feeding problems of your lawn, we have the right plant foods for it. All-purpose lawn foods or special fertilizers for special conditions—they're all here for you, in any amount you need.

3—Tested weed controls

The weeds in your lawn will be fighting a losing battle if you let us furnish your ammunition. We have the full range of weed controls to choose from—and can show you how to vanquish lawn weeds easily and surely.

4—Complete lawn know-how

Last, but perhaps most important of all, our 4-way lawn service includes competent advice whenever you want it—advice based on thorough knowledge of the lawn problems of this particular territory. We have the necessary know-how—and it's at your command!

Astoria Bent

Produces numerous root stocks which spread underground and throw up new shoots, making a very thick turf. This Bent has a good color and is excellent for lawns and putting greens. Does not require as much cutting as Creeping Bent.

Seaside Bent

A true creeping Bent. The plant is dwarf, and multiplies rapidly by sending out runners in all directions. With proper watering and care, it makes a strong, enduring turf. If damaged it heals over promptly.

Chewings Fescue

A superb grass to grow in rather shaded areas and even on fairly acid soil and under other unfavorable conditions. Plants grow low, make a dense turf. Often used for putting greens and fairways.

White Dutch Clover

Although not a grass, White Clover is very desirable in lawn mixtures because of its rapid, low growth and creeping stems. Valuable as a green cover for poor ground. Succeeds best on moist ground or during wet season.

Kentucky Blue Grass

Produces a deep dark green lawn of

close, thick turf. Maintains its green color until late in fall. Roots are deep, and plants are very hardy. Makes one of the best lawns.

Domestic Rye Grass

A quick-growing annual, valuable in lawn mixtures as a nurse crop, to keep lawn green while better, slow-growing varieties are becoming established. Succeeds well on almost any soil.

Perennial Rye Grass

A quick growing grass, most suitable for mixtures. Succeeds well on almost any soil not water sogged.

Red Top

Particularly suitable for wet, low spots, as it stands wet weather, or even overflowing, better than other grasses. Also does well on almost any good, rich soil. Often thrives where blue grass fails—and therefore makes an excellent supplement for it.

Other Grasses

Besides the lawn grasses listed here, we can also supply just about any other grasses you may need. We carry a complete line of all varieties that can be successfully grown in this part of the country. Just tell us what you want!

Our Finest Lawn Mixture

A combination of the finest quality seeds—a mixture which we have developed after years of experience. All the grasses in it are fine-bladed and deep-rooting. There just isn't any better combination than this for the lawns in this territory!

Our Special Shade Mixture

Our shade lawn mixture is a scientifically developed blend of top quality shade-enduring grasses and clovers. We've been getting excellent results with it for years and believe it will produce fine results anywhere that grass can be made to grow.

How Much Seed?

Skimpy seeding is the most costly in the long run. Plant enough to get a thick, heavy mat of grass and you'll need far less re-seeding.

The wise minimum for new lawn planting may be figured from this table:

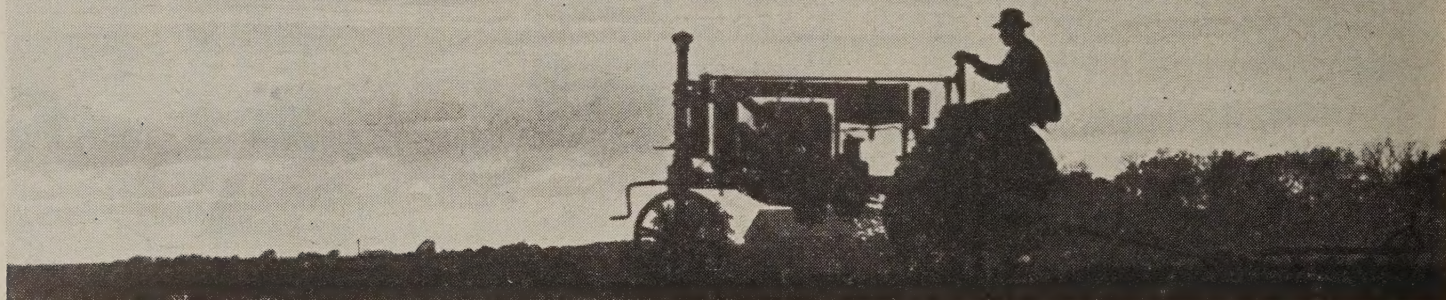
Size of Plot	Square Feet	Amt. of Seed
10x20	200	1 lb.
20x50	1,000	5 lbs.
20x100	2,000	10 lbs.
50x100	5,000	25 lbs.
100x100	10,000	50 lbs.

For re-seeding, use half these amounts.

What kind of seed? Climate, amount of sun or shade, soil conditions, drainage, slope, all must be considered.

That's why we suggest that lawn seed should be bought from a merchant who can weigh all these factors—and help you get the right answer.

FARM SEEDS



ALFALFA—The No. 1 soil builder and restorer. We carry a full range of varieties, adapted to this territory.

MILLET—An excellent food for stock and poultry. Also a good green fodder and hay plant. Chokes out weeds.

RAPE, DWARF ESSEX—Highly recommended for pastures for sheep, cattle and hogs. Makes splendid green feed for poultry. Plant early spring in moist soil.

SORGHUMS—An excellent soiling crop furnishing succulent feed for milch cows. A large yielding fodder crop. A good range of varieties.

SOY BEANS—The crop of many purposes. Excellent for hay, ensilage, grain, and soil improvement. Ground soy beans are as good or better than Oil Meal for mixing with grains for dairy ration.

VETCH—A great producer for hay, pas-

turage, or silage. Good cover crop and soil builder. Needs only moderate moisture, grows in almost any soil.

CLOVERS

Alsike—Very hardy. Does better on moist land than other varieties of Clover. Suitable for hay or pasture. Good bee plant.

Medium Red or June—The most valuable of the Clover family. Makes two crops the second year. Does not exhaust the soil but enriches it.

Mammoth Red—Also called "Pea Vine" Clover. Grows large and coarse, often used for plowing under to enrich soil.

White Dutch—A very hardy creeping clover adapts itself to great variety of soils and climates. Good pasture for sheep or cattle; fine for bees.

White Sweet (Biennial)—Excellent for pasture, hay and a soil improver. Drought-resistant.

GRASSES

Alta Fescue—New all-purpose, all-location grass. Highest yielding grass for pasture-hay-silage. Grows on wet or dry, acid or alkali soil. Takes a year to establish but lasts 20 years or more.

Brome Grass—Drought defying, resistant to frost and extreme heat alike. Very

**Ask for our latest
COMPLETE LIST
of varieties and prices
including many not listed
here.**

early, and stays green late in fall. Produces abundant pasturage and enormous crops of high grade hay.

Kentucky Blue Grass—Excellent for pasture for all kinds of stock. Very hardy. Roots form tough sod. Requires two years to get well started, so often sown in mixtures with other grasses.

Orchard Grass—Hardy, quick-growing. Gives large yield of excellent hay. May be cut several times during season. Will grow in shady places.

Reed Canary Grass—Especially suited to swampy, over-flowed lands; but thrives on uplands where moisture is abundant. Makes splendid pasture, very early; lasts to late fall.

Red Top—Valuable for most soils. A good permanent grass. It should be grazed close. Grows successfully on "alkali" lands where other grasses fail.

Rye Grass, Domestic—Fast growing one-year grass. Yields abundantly, and matures all in one season. Helpful as a nurse crop to other grasses.

Rye Grass, Perennial—A good pasture grass. Grows quickly and withstands drought reasonably well.

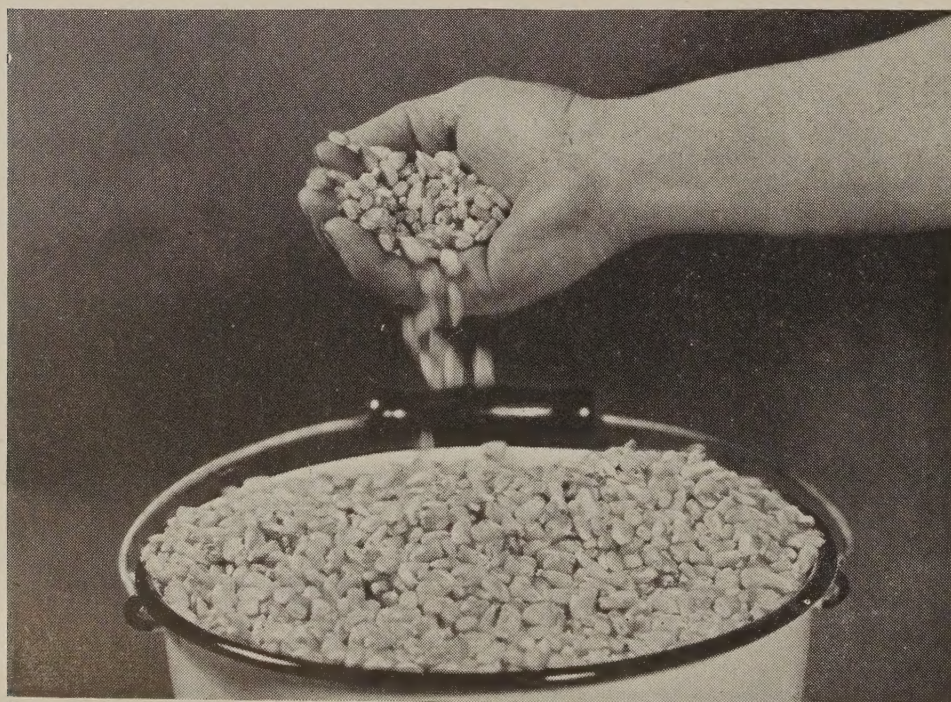
Sudan Grass—The ideal emergency hay and pasture crop for late planting. Never plant until ground is warm.

Timothy—Unsurpassed as a crop for hay. Relished by all kinds of stock, especially horses. Not suitable for permanent pasture. Should not be cut too early or pastured too late in fall.

SEED CORN

More and more, the problem of choosing seed corn is becoming a local problem. It's of prime importance to have the varieties that best fit your own growing conditions.

Our selection is built on intimate knowledge of this district.



SEED POTATOES

Our certified Stocks are the most economical you can plant, they reduce your hazards, give you bigger production and fewer culls. They are true to name . . . grown especially for seed stock . . . more highly disease resistant . . . tagged for origin.

VEGETABLE SEEDS

... selected for RESULTS in your garden

From among all the thousands of available varieties, we have selected those which will produce the best quality and the greatest yields in the gardens of our territory. So we offer you this compact selection as a safe, sound base for your plans.

VEGETABLES FOR FREEZING

The symbols (fr) following the variety names indicates vegetables suitable for home freezing.

ASPARAGUS

A hardy perennial; will bear over 20-year period if properly cared for. We recommend purchase of ASPARAGUS ROOTS rather than seeds, as roots produce crop 2 years earlier. If seed is used, sow thinly in drills in early Spring. Cover to 1/2" depth. Thin plants to 6 inches apart and when a year old transplant to heavily enriched beds. 1 oz. sows 60' of drill.

Mary Washington (fr)—Thick, tall green spears with purple tops. Highly rust resistant. Rapid growing. Tender.

BEANS

Green Podded, Dwarf or Bush

Sow in rows 2 1/2' to 3 1/2' apart. Plant seed 1 1/2" to 2" deep and 3 to 4" apart. Do not plant until danger of frost is past. Press soil firmly around seeds. Thin young plants to about 6" apart. Keep cultivated until plants blossom. (DO NOT CULTIVATE when blossoms are at prime or when plants are wet with dew. Keep vines picked to insure a longer bearing period.) Make plantings every two weeks for supplies throughout the season.

Black Valentine Stringless (fr)—Hardy, early maturing, very productive. Pods, dark green, 6-6 1/2 in. long, brittle, smooth, stringless. Seeds black. 49 days.

Bountiful (fr)—An early, heavy-yielding variety. The leading flat podded bean

for market and home use. Flat, light-green, stringless, but slightly fibrous pods of finest quality. 47 days.

Burpee's Stringless Green Pod (fr)—Large, sturdy plants. Meaty, round pods, brittle and strictly stringless at all stages. Medium green pods, oval, yellowish-brown seed. 54 days.

Dwarf Horticultural (Speckled Cranberry)—Snap bean; also used for green shelled beans, edible in 62 days. Plant medium in height and prolific. Pods green at early stage, speckled with carmine at maturity.

Plentiful—Productive, early. Flat, medium green pods, 6 to 7-in. long, strictly stringless. Choicest quality. All-America Bronze Medal 1939. 51 days.

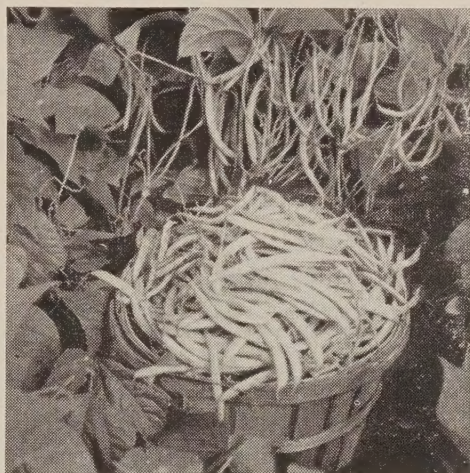
Tendergreen (fr)—Large, erect plants. Abundant, round, dark-green pods, strictly stringless and fleshy. 54 days.

Wax Podded, Dwarf or Bush

Improved Golden Wax (fr)—Small, erect plants, moderately productive. Straight, thick, flat pods, creamy yellow and stringless. 51 days.

Pencil Pod Black Wax (fr)—A leading wax variety for home and market gardens. Stocky, large, strongly productive plants. Pods, golden yellow, tender, entirely stringless. 55 days.

Sure Crop Stringless—Handsome, rich yellow pods. Sturdy, brittle. 6-6 1/2 in. long. Strictly stringless. 53 days.



PLENTIFUL BEANS

Best varieties for FREEZING are marked (fr)

We've indicated the best varieties for freezing by the symbol "fr" after the variety name. But you're not necessarily limited to these. Almost any vegetable frozen when young and succulent is generally good . . . except those served for crispness, such as lettuce, celery, radishes, etc.

Whole tomatoes, and vegetables with high starch content are not recommended for freezing.

Freezing is the perfect way to capture the true flavor and freshness of many garden vegetables. But freezing can't put into a vegetable any flavor or tenderness it does not have when processed. If you want the true garden fresh flavor in mid-winter, you must plan for it when you lay out your garden. Note the maturity dates given for each variety. Figure back this

number of days and add 10 days (to bring the entire planting into full production). This will tell on what day you should plant. Thus with a 50 day bean, figure back two months from the date you plan to process beans for freezing. If you plan to freeze beans on August 10, then you should plant on June 10th.

Freeze only the best quality vegetables! Wash and sort them carefully . . . discarding any that are overripe, bruised or show signs of decay. Process quickly according to tested directions. Pack and seal in leak-proof cartons that can be taken to the freezing unit immediately.

Properly prepared and frozen vegetables stay good for as long as eight months to a year.

All Vegetable Seeds
10¢ PER PACKET
UNLESS OTHERWISE NOTED

BEANS, Continued

Beans, Pole

In warm ground, set poles 4' to 8' long slanting a bit to the north in rows 4' apart. (Extending north and south the poles will be 3' apart in the row.) Plant 5 to 8 beans about 1" deep around each pole. When growth is sufficient thin to the four strongest plants.

Caution: To avoid spreading plant diseases, do not cultivate or pick when plants are wet.

Horticultural Pole (Cranberry)—A well known producer. Pods 6 inches long, straight, dark green at snap stage—yellowish and speckled with red at green shell stage. Dried beans excellent for Winter use. 70 days.

Kentucky Wonder (fr)—Strong climber, hardy, long-bearing. Curved, almost round pods. Slightly stringy, but brittle and fibreless. Meaty. 65 days.

Kentucky Wonder Wax (fr)—Very popular. Vigorous, good climbing plants, waxy-yellow pods, flat and nearly stringless. Somewhat fibrous but meaty. 68 days.

Yard Long—Cowpea group. Oval, fleshy, fibreless and tender with red-brown seed. Pods 8-10 in. long. 70 days.

Lima, Dwarf or Bush

Plant in dry, warm ground. Make rows 2' apart and drop beans 6" apart in row. Cover with 1" of soil. Can also be planted in hills, 3' apart one way and 2' apart the other way. Use 4 to 6 beans per hill.

Baby Potato (fr)—1940 All-America. Small, thick-seeded butter bean with real flavor, early maturity and prolific growth. 12 to 16-in. tall. Pkt. 15c.

Burpee's Improved Bush (fr)—Best of flat seeded bush limas. Pods contain four or five large beans of excellent quality. 75 days. Pkt. 15c.

Cangreen Bush (fr)—A new, small bush lima. A strong grower and prolific. Seeds slightly larger than Henderson type. 65 days.

Fordhook Bush (fr)—Straight pods with plump, large beans, excellent quality.

Lima, Pole

Follow same plan as for other pole beans but plant seed two weeks later.

King of the Garden (fr)—Flat, smooth pods with four or five white, large, flat beans. 88 days.

Sieva, Carolina or Small White—Plant 10 to 12-ft. tall, and bears over a long season. Medium green pods with 3 to 4 beans of excellent quality. 77 days.



TENDERGREEN
BEANS

BEANS, SHELL

Navy—Small seed, almost round and white. Hardy, prolific. Most popular for baking. 95 days.

Red Kidney—Pods 6-7 in. long. Flat, large beans, pinkish red to mahogany in color. Rich flavor. 95 days.

Soy (Edible)—Plants are extremely productive, vigorous and upright. Beans may be used green or dry. 95 to 110 days.



SOY BEANS (EDIBLE)

BEETS

Deep, rich sandy loam produces finest beets. As soon as ground can be worked sow in drills 18" apart and press soil firmly over seed. When tops are 3" to 6" tall pull them and use for cooked greens. Continue this until roots stand 6" apart. Plant every 10 days or so.

Crosby's Egyptian (fr)—Widely grown for early beets. Flattened globe shaped roots with small tap root. Excellent quality, tender and sweet. 60 days.

Detroit Dark Red (fr)—Standard of excellence in table beets. Smooth, globular roots of deep ox-blood red—sweet and tender. 68 days.

Early Wonder—Early variety. Semi-globular, tender, blood-red. 58 days.

BEETS, STOCK (Mangel Wurzel)

Sow seeds in early fall and spring in rows 2½' to 3' apart. Later thin to 10" apart.

Mammoth Long Red—Very popular, 30 to 50 tons per acre. Roots grow half above the ground. Light red, flesh white with rose tinge. 110 days.

SWISS CHARD

Requires about same treatment as beets. Cultivate frequently. Leaves may be gathered during summer and fall. New ones will grow quickly.

Lucullus—Most popular Chard. Upright in growth, with yellowish-green curled, crumpled leaves. Thick, broad and light green stems. 50 to 60 days.

Rhubarb Chard—Heavily crumpled leaves, dark green with a translucent crimson stalk. Easily grown, everywhere. A different, tasty, delicious flavor—cook stalks and leaves together for a new taste thrill. 60 days.

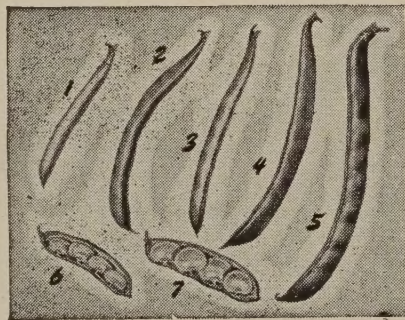
BROCCOLI

Plant and cultivate like cabbage and cauliflower.

Italian Green Sprouting (fr)—Plant bears a succession of sprouting heads about 5-in. long, which, if kept cut, will be replaced by others for 8 to 10 weeks. 55 to 65 days.



The Old Gardener on BEANS



Almost everybody likes beans. And even those who don't care too much for them would change their minds if they could eat them at their best—young, tender pods cooked a few hours after they're picked. Beans are the most adaptable crop we have. You can always squeeze in a crop if you have sixty days of growing weather before frost. The plants can be kept producing over a long period, if you'll pick them clean. You'll

get more beans per square foot (and better beans) by starting a short row every two or three weeks. When you make these succession plantings, don't forget to plant a generous row for canning or freezing.

Don't neglect the lima beans. Even those who have been growing the small-seeded types usually switch to the large seeded, once they've tasted a variety like Fordhook bush.

The beans illustrated here (to give you a comparison of sizes) are: 1—Improved Golden Wax; 2—Giant Stringless; 3—Tendergreen; 4—Bountiful; 5—Kentucky Wonder; 6—Henderson's Bush Lima and 7—Fordhook Bush Lima.

All Vegetable Seeds
10¢ PER PACKET
UNLESS OTHERWISE NOTED

In bulk at money-saving prices.
Special quotations to market gardeners.
Prices subject to change without notice.

HOW? WHEN? WHERE? WHY?

Practical answers to every-day questions about home gardening

Cut living costs! Grow your own food!

Now, more than ever before, YOU NEED A GARDEN!

With sky-high food prices, a garden is a better investment than ever! Back in the days when food prices were reasonable, a nation-wide survey showed that, *for every dollar spent on home gardens, the average return in vegetables was more than ten dollars.* Today, the ratio is far higher.

Think of the prices you'll have to pay this year, if you buy fresh vegetables in the markets! It's not a very pleasant thought, is it? But you can beat these high prices—by *growing your own!* And what's more, you'll have fun doing it. There's no more pleasant and healthful occupation than gardening!

So make your plans now for a thorough attack on high food prices! *Let your own garden provide what you need!*

DON'T expect your garden to grow itself—advance planning will cut down the amount of work needed, will make it more productive and will provide a constant flow of all the fresh vegetables you can eat.

How Much to Plant

Figure exactly the number of feet of row to plant. Consult the chart on page 20. Decide how many times during the harvest season you want to eat a certain crop, how much of that crop you ordinarily serve to your family, and plant accordingly. Thus, if you like beans, and if you want to serve them twice a week, 1 pound at a serving, note that a 50 foot row will produce about 20 pounds. Since beans produce freely for about three weeks, a 30 foot row should give you all the

snap beans your family cares to eat during that time. Why tend 50 feet of row when 30 will do?

DO plan to make succession seedings. Work your garden full time by planting a good summer garden that will produce until frost. And DO make provision for canning, for freezing and for storing.

Succession Seeding

DON'T work more land than you need to. Conserve your energy by intercropping, catch cropping and succession cropping. In intercropping, short season crops are grown between slower growing plants (i.e., plant early lettuce between rows of tomato plants that won't need the space until after the lettuce is eaten). In catch crop-

ping, plant an early crop before the main crop is planted. In succession cropping the main crop comes first (i.e., snap beans to be followed by late turnips). In this way you make better use of space, cut down the number of rows to tend, and make better use of water and fertilizers.

In the smaller garden, concentrate on vegetables that lose quality most rapidly when shipped any distance—delicately flavored green beans, summer squash, early cabbage and leaf lettuce. Unless you have plenty of room, better leave late cabbage, dry onions, winter squash and potatoes to commercial gardeners.

Poor Soil

DON'T plant in water-logged or poorly-drained soil. If your garden doesn't drain readily, either find another plot or provide tile drainage. No soil will grow good root crops that dries out hard and compact. If the cost of conditioning such soil is too high, as in plots to be used only one year, omit carrots, beets, etc., and concentrate on leafy vegetables and those that produce above ground, such as tomatoes, peppers, etc. You can remake such soil by adding well-rotted organic matter. This may be old manure, spent mushroom manure, peat moss, rotted compost, etc. If coal ashes have weathered for at least a year, they will help break up clay also. So will an application of lime. On the other hand, light sands can also be improved by adding liberal amounts of organic matter.



BROCCOLI, Italian
Green Sprouting



PEPPER, Pimento



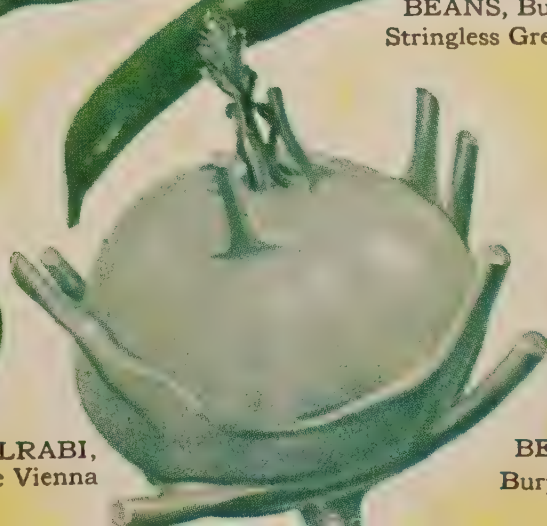
CUCUMBER, Straight Eight



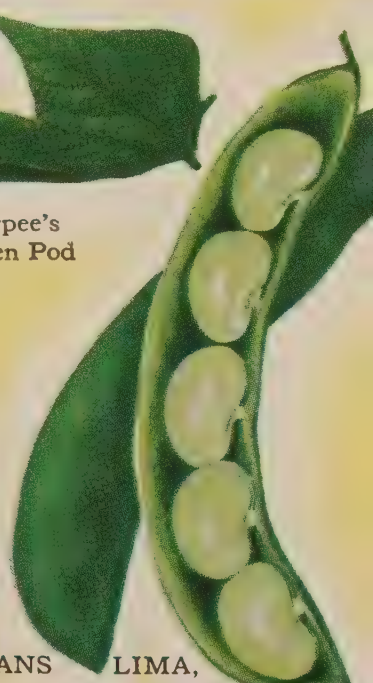
SQUASH,
Table Queen



BEANS, Burpee's
Stringless Green Pod



KOHLRABI,
White Vienna



BEANS LIMA,
Burpee's Improved Bush

BRUSSELS SPROUTS

Easy to grow wherever conditions are favorable for late cabbage, and requires same culture. As sprouts begin to form remove lower leaves so that all nourishments sent to lower stem will be forced into the sprouts.

Long Island Improved—Compact, uniform dwarf size plants. Cabbage-like sprouts 1¼-1½ in. in diameter. One of the most dependable varieties. 90 days.

CABBAGE

Sow seed in drills 6" apart across the bed, dropping the seed 5 to 6 to the inch. Firm soil after covering, then water thoroughly. Keep beds moist but not soaking wet. Seed germinates 3 to 8 days depending on temperature. Transplant to open ground when plants have made fourth pair of leaves. Set out as soon as frost danger is past. Use plenty of good commercial fertilizer. Cultivate frequently, every 5 or 6 days until cabbages are large. For winter storage, stand plants upright in cold cellar, with roots in sand. Slight freezing will not harm cabbage.

Yellows Resistant Varieties

Yellows Resistant Marion Market—Large, firm, round heads, used for early kraut. A development from Copenhagen Market. 7-in., 4-lb. heads. 75 to 80 days.

Yellows Resistant Wisconsin All Seasons—Mid-season all-purpose variety, slightly coarser than standard All Seasons. 10 to 12-in., 9 to 10-lb. heads. 90 to 95 days.

Yellows Resistant Wisconsin Hollander—Late, excellent for winter storage and kraut. Similar to Hollander and Danish Ball Head. 7 to 8-in., 7 to 9-lb. heads. 100 to 110 days.

Standard Early Varieties

Charleston Wakefield—Pointed-head, large, hardy. Splendid first early cabbage for home use. Plants medium, vigorous, slightly spreading. Leaves rather large, smooth and thick. 71-75 days.

Copenhagen Market—Excellent, early short season type. Short stems, 6½-in., 3½ to 4-lb. heads. 65 to 70 days.

Early Jersey Wakefield—Pointed heads, small and firm. Earliest pointed variety. Plants compact. 62 days.

Golden Acre—Extra early variety producing uniform well-balanced head. Weighs about 3 lbs. Excellent quality. 65 days.



GOLDEN ACRE CABBAGE

Late or Winter Varieties

Danish Ball Head or Hollander—A widely used late type. Deep, round, hard, compact heads, 7 to 8-in., 6 to 7-lb. Tender, crisp, fine for kraut. 100 to 105 days.

Premium Late Flat Dutch—Heavy yield variety. Very large heads, flat and solid. Leaves light gray-green. 100 days.

Perfection Drumhead Savoy—Heads round, hard, compact. Leaves deep green, coarsely crimped. Keeps well. 90 days.

Red Varieties

Mammoth Red Rock—Best of the red cabbages. Hard, round. Purplish-red heads. Good keeper, 6 to 8-in., 7 to 8-lb. heads. 100 days.

CHINESE CABBAGE

An easily raised succession crop. Set out in rows which have been occupied by earlier vegetables.

Chihili or Improved Pekin—Dependable, early. Solid, tapered heads, 3 to 4-in. thick, 18 to 20-in. long. 75 days.

CARROTS

Use sandy loam enriched by manure the previous year, if possible; but any good land if deeply and well worked will produce a good crop. Sow seed as early as ground can be worked. Sow seed ½" to 1" deep in drills 16" to 18" apart. Press soil firmly above seed. When plants appear use cultivator or wheel hoe and thin from 2" to 6" apart, according to type. Keep cultivated.

Chantenay, Red Cored (fr)—Root has thick shoulder and tapers to slight stump root, 5-in. long. Red cored. 70 days.

Danvers Half Long—Sweet, tender roots, 6 to 7-in. long tapering to a blunt point. Fine for storing. 75 days.

Improved Imperator (fr)—Fine-grained, tender. Rich orange, indistinct core. Roots smooth, tapered to semi-blunt. 77 days.

Nantes Improved Coreless (fr)—Excellent for forcing. Tops small, roots bright orange, blunt ended. Flesh reddish orange and practically coreless. 70 days.

Oxheart or Guerande—Excellent for shallow soil, easy to harvest. Chunky, tender and sweet. Bright orange. Keeps well. 72 to 75 days.

CAULIFLOWER

Packet, 25c

Needs rich soil and abundant watering. Cultivate same as cabbage but protect heads from sunlight to insure the prized white curd. This is done by gathering leaves together loosely as soon as heads begin forming, and tying them at the top.

Early Snowball (fr)—Best and most widely used early variety. Medium, firm compact heads of fine flavor. 6-7 inches in diameter. 55 days.

Snowdrift (fr)—Heads slightly larger than Snowball, firm and solid. Plants medium height with upstanding, medium green outer leaves. 65 days.

CELERIAC

Large Smooth Prague—(Turnip rooted celery). Smooth spherical roots. 2 to 3-in. thick. 120 days.

CELERY

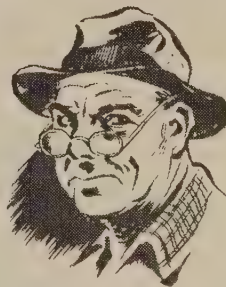
Sow late spring for fall maturity. Have shaded beds and cover seed ¼". Transplant when 6" high. Keep soil well fertilized and moist. Crop matures in cool weather of autumn.

Giant Pascal—Late variety for winter use. Large plant, dark green leaves. Big solid stalks that blanch to yellow white. 135 days.

(Continued on Page 12)

The Old Gardener on CARROTS

Carrots are a triple-treat crop—you can freeze them, store them or can them, in addition to serving them fresh. All three methods will save the delicious carrot sweetness for winter eating. Better have plenty for eating fresh, too, especially the finger-size thinnings from the row. Commercial growers throw these away but they're the choicest morsels the garden produces. The new coreless types are best for eating fresh, canning or freezing. They have less fibre, taste sweeter.



If you must store carrots in a cellar or outdoor barrel, you'll want something a little firmer, like Danvers Half Long. If your soil is stiff, stubborn clay, use Oxheart, which grows straight, while the longer kinds will "dogleg" or corkscrew as they try to grow in clay.

The carrots illustrated here, for comparison of actual sizes, are: 1—Chantenay; 2—Imperator; 3—Danvers Half Long; 4—Red Cored Chantenay; 5—Oxheart.



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**BEETS, Crosby's Egyptian (Center)
Early Wonder (Left)
Detroit Dark Red (Right)**



RHUBARB CHARD



ONIONS, Yellow Globe Danvers



TOMATO, Jubilee



CANTALOUPE, Hale's Best



EGG PLANT, Black Beauty

HOW? WHEN? WHERE? WHY?

Practical answers to every-day questions about home gardening

Extra Feeding

DON'T DEPEND on organic matter only for *feeding* your vegetables. While it has some fertility value, it won't provide enough. Remember that vegetables growing in a garden are in an artificial environment. You don't want *natural* growth; you want crops to mature as soon as possible, and this means *extra* feeding with suitable fertilizers. Properly used, chemical fertilizers furnish plant food at lowest cost in most readily available form.

DO make provisions for extra feedings through the summer as plants grow and take fertility from the soil.

When to Use Lime

DON'T apply lime unless it is really needed! It is good, of course, for the purpose of breaking up heavy clay soil. A good check on the need for lime is the way your beets grow. Usually a garden soil that will grow good beets contains enough lime. If beets do poorly, or if sheep sorrel grows vigorously, apply about 50 lbs. of hydrated lime or 100 lbs. of ground limestone to every 1,000 sq. ft. of garden. If you have a pH tester, most flowers and vegetables grow well in a soil that tests between 6.0 and 7.0.

Before You Dig

Before digging or plowing the garden, apply 2½ to 3 lbs. of balanced fertilizer over every 100 sq. ft. of garden. Divide fertilizer into two lots, sowing one with the wind and the other

across the wind. Or, better yet, use a fertilizer spreader.

Next, make a mud pie test. Pick up a handful of soil and pat it lightly into a mud pie or cake. If this can be crumbled into loose soil easily, the soil is all right to dig. If it hangs together, it is too wet; don't dig.

Spading the Garden

The average home garden can be dug easily in five or six days, if done in stages. Usually, a hand-dug garden is in better condition than one that has been plowed. Start by digging a trench the depth and width of a spade. Wheel the dirt from this trench around to the other side of the garden, where you plan to finish digging. Throw the dirt from succeeding rows into the trench made by the previous spade cut. The last cut is then filled with the earth wheeled from the first.

Spading vs. Plowing

DON'T allow bad plowing to spoil your soil. Many a garden plot has been ruined by a heavy tractor that worked it too wet. Be sure your soil passes the mud pie test before you allow a plowman to touch it. Too often, regular farm equipment is too heavy for working garden soils.

DON'T work your soil too much. Remember that after you finish digging or plowing, your soil has been fluffed up and loosened, so plant roots can grow through it easily. Every time you go over it you are packing it down, making it less suitable for

growing plants. Most inexperienced gardeners overdo surface preparation by trying to work the surface into a fine dust. Clods should be broken up, stones raked off and trash removed, within sensible limits. If the soil was dug at the right mud pie point, most lumps should break up without too much additional cultivation.

DO use a cord or garden line stretched across the garden in laying out rows. Crooked rows increase the work needed. Also, they waste space. Open furrows for sowing seed by running the end of a hoe handle along a taut cord. For most seeds this should not be more than ½" deep; 1" deep for peas, beans, corn, etc. Fine seeds should not be covered more than ¼" in the furrow. If your soil cakes or crusts badly, use clean sand, or a mixture of 50/50 sand and leaf mold, or peat moss, to cover the seed. This loose mixture does not cake and allows the tender seedlings to break through readily.

Where it is important to catch light rainfall, corn, peas, beans, etc. can be sown at the bottom of a 3" to 4" furrow, but should not be covered with more than 1" of soil.

A hill is a hole! Many gardeners think a "hill" for planting squash, cucumbers and melons is actually a pile of earth. But a hill means a shallow depression filled with rich earth, not a mound. This depression catches extra moisture that the vine crops need for rapid growth. Vine crops will grow better if you can dig in lots of well-rotted manure or compost underneath.

CELERY, Continued

Golden Self Blanching, Dwarf—Compact plants, yellowish green foliage. Broad solid stalks, nutty flavor. Blanches readily. 120 days.

Wonderful or Golden Plume—Early, medium plant with compact, full heart. Blanches easily to golden yellow. 112 to 115 days.

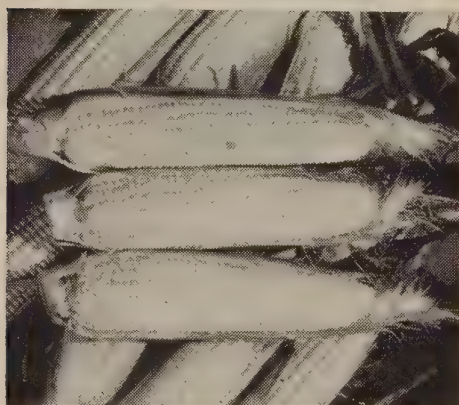
CHICORY

Witloof (French Endive) — Compact, blanched head. Crisp, broad leaves having pleasant sharp flavor. Must be reset in cold frame or greenhouse in north. 140 to 160 days.

COLLARD

Sow seed heavily and transplant when 4" high; or sow in rows in permanent beds and thin to 16" to 18" apart when plants are well started

Southern or Georgia—An excellent cooked green. Long stemmed plant, with clustered leaves. Withstands heat and bad soil. 24 to 36 days



IOANA CORN

SWEET CORN

Do not plant until all danger of frost is past. Be sure soil is well worked and dry—then drop 6 kernels of corn in a shallow hole made with the corner of the hoe. Cover each "hill" with about 1" of fine soil pressed down firmly. When 6" high, thin to three or four plants in each hill.

Hybrids

We offer Hybrid Sweet Corn varieties

known and grown the country over—the finest that can be procured anywhere. We list here only a few of these choice kinds. Whatever your needs or your preference, be sure we can supply you with the kind of corn you want. Talk it over with us.

Golden Cross Bantam (fr)—Extremely uniform. Ears 10 to 14 rows, slightly lighter yellow than Golden Bantam. Highly resistant to Stewart's disease. 85 days.

Ioana (fr)—1940 All-America. Ears 7½ to 8-in., well filled with 12 or 14 rows of deep, medium narrow, light yellow kernels. Highly resistant to drought and bacteria wilt. 87 days.

Marcross (fr)—An early wilt-resistant yellow hybrid, producing deep golden yellow kernels 7 days earlier than Golden Bantam. Ears 6 to 7-in. long, with 12-14 rows of large sweet kernels. 73 days.

Stowell's Hybrid Evergreen—White. Large ears about 8-in. long; big kernels, very sweet. One of the best late varieties. 95 days.

Open-Pollinated

Bantam Evergreen—A cross of Golden Bantam on Stowell's Evergreen. 14 to 18 rows. Deep, rich golden kernels, tender, sweet. 90 days.

Black Mexican—Pure white corn with purplish-black seed. Ears are 7 to 8 in. long, 8 rows. Cylindrical straight rowed. 88 days.

Country Gentleman or Shoe Peg (fr)—Prolific late variety. Favored by canners. Irregular kernels, very deep, sweet. 93 days.

Golden Bantam (fr)—The best and most favorably known of all the yellow varieties. Stalks often have 2 ears. Ears 8 rowed, kernels broad, with tender hull.

Stowell's Evergreen—White. Large ears about 8-in. long; big kernels, very sweet. Good late variety. 93 days.

POP CORN

South American or Yellow Dynamite—Rich, creamy, yellow, smooth and round kernels, which pop double size of others. Ears 8 to 9-in. long. Vigorous grower. 115 days.

White Hulless (Japanese)—Chunky ears without row formation. White pointed kernels, narrow. Pop snowy white. 85 days.

New! Hybrid Pop Corn

You will be delighted with the new hybrid pop corn. Yields are terrific; every plant produces corn with satisfying uniformity of big ears, with uniform popping ability. ASK US ABOUT THESE NEW HYBRIDS!



EARLY FORTUNE CUCUMBER

CUCUMBER

Select soil fully exposed to sun and enrich thoroughly with fertilizer. Seeds should be planted not over 1" deep in hills from 3' to 5' apart each way. Sow 15 to 20 seeds to a hill. When plants crowd thin to 3 plants per hill. Frequent shallow cultivation necessary until runners appear.

A and C or Colorado—A long dark green cucumber which merits a trial. Uniform, nearly cylindrical, well rounded at ends.

Cubit—Won Bronze Medal Award in 1944 All-American Selections. Dark green, white spine, cylindrical with blunt ends. Firm flesh and uniform coloring. New and worthwhile.

Early Fortune—Rich, dark green fruits with firm, crisp, pure white flesh. Grows to 9 by 2½-in. Ships well, and is highly resistant to disease. 66 days.

Long Green Improved—Black spined, good pickling. Grows 10 to 15 in. long, 70 days.

Marketer—Fine new variety, very prolific. Attractive rich, dark green color, carried right down to blossom end. Crisp, icy-white flesh. 7¾-in. long, 2¾-in. diameter.

The Old Gardener talks of SWEET CORN

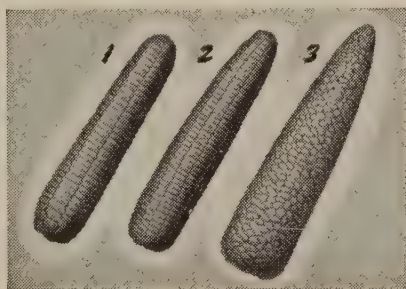
Most sweet corn is really sweet only if it's home-grown. It must be cooked within an hour of the time it's picked if you want the true sugar flavor. As soon as it's picked, the sugar begins to turn to starch, and six hours after its picked, most of the sweetness is gone. So if you really want sweet, sweet corn, grow your own.

Even those who used to have failures with the old open pollinated varieties because of plant disease can grow the new hybrid varieties with their big juicy ears. But if you do grow the hybrid kinds, be

sure to plant more than one variety because they set better ears when the pollen from more than one variety is flying at a time. And for best pollination, don't plant a long single row: instead plant several short rows side by side so the pollen can blow through them. All corn is wind-pollinated and wind must

hit all the stalks in the field if they are to set good ears. For directions for growing better sweet corn, see Vegetable Seed Culture.

The sweet corns illustrated here are: 1—Golden Bantam; 2—Golden Cross Bantam; 3—Country Gentleman.



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NEW HAMPSHIRE HYBRID EGGPLANT

National Pickling—Rich dark green. Straight and rather blunt at ends but not chunky. Best all-around pickler. 55 days.

Stays Green—An early, popular variety. Grown extensively in the South for Northern markets. Symmetrically shaped, with square-like ends. 60 days.

Straight Eight—Unsurpassed as slicing cucumber. All-America Selection. 2½-lb. fruits, rounded at ends, medium green. 68 days.

EGGPLANT

Requires continuous warm weather for best results. Seed should be started in a hotbed, as it is slow to germinate. Set plants in open ground when 2" tall and protect from hot sun when young. Be sure to keep young plants developing rapidly. Cultivate freely. To produce large fruits, remove lateral branches so as to reduce number of fruits per plant. Spray to protect from potato bugs.

Black Beauty (fr)—Large, egg-shaped, smooth, very dark purple fruits. Keep well. Plant bears 4 to 5 fruits. Early.

New Hampshire Hybrid—Developed for short season areas. Round to olive shape fruits, growing low on the bush.

ENDIVE

Sow at intervals for continuous supply. When well started, transplant or thin to 1' apart. To blanch, tie outer leaves together over the center when plant is nearly grown. Just before killing frosts in fall, dig the plants, taking plenty of soil with roots—pack closely together and store in dark cellar for winter use.

Full Heart or Escarole—A strongly bunched mass of thick, slightly crumpled leaves, well blanched heart. Upright growing plant about 12 inches in diameter. 71 days.

Green Curled Ruffec—Plants 16 to 18-in. in diameter. Fine fall variety. White, tender, fleshy. 95 days.

KALE OR BORECOLE

Requires moist, well enriched soil. Pick leaves as wanted, or pull whole plant. Leaves are best after a frost.

Dwarf Blue Curled Scotch—Wide spreading, fine curled blue-green plant, plume-like leaves. Use as a vegetable and for ornament. Exceptionally uniform. 55 days.

Dwarf Siberian—Hard and productive. Bluish green foliage. Leaves large and spreading. 65 days.

KOHLRABI

Sow early as possible in light, rich soil. When plants are in the third leaf, thin to 6" apart. Plant at intervals of 10 days for succession of bulbs until hot weather—after which they do not grow. Use while still young and tender, before skin hardens.

White Vienna Early (fr)—8 to 10-in. leaves on slender stems. Bulbs 2 to 3-in., globular, light green. Crisp, tender, clear white flesh. 55 to 60 days.

LEEK

Large American Flag—An early, popular variety, with thick, long white stems. Leaves large and drooping, medium green. 130 days.

HERBS

Every garden has a place for herbs. In the vegetable garden for seasoning or salads; or for their ornamental appearance in the flower garden.

Anise—Garnish or seasoning.
Borage—Salad or to flavor drinks.
Caraway—Seeds and leaves for flavor.
Coriander—Flavor for candy.
Chives—Flavor for soups, stews.
Dill—Flavor for pickles.
Fennel, Sweet—Garnish or salad.
Margoram, Sweet—Seasoning.
Rosemary—Odor or seasoning.
Sage—Seasoning, fresh or dried.
Thyme—Aromatic seasoning.

LETTUCE

Keep lettuce growing rapidly for best results. A light, rich soil needed for this. Earliest varieties must be started from seed in cold-frame. As soon as open ground can be worked transplant. For later use, sow seed in open ground as soon as weather is favorable. Keep rows 12" to 18" apart. Thin plants in rows 4" to 8" depending on variety.

Heading or Cabbage

Bibb—Early, small headed lettuce of excellent quality and flavor. Perfect for home gardens. Very smooth, dark green leaves, bleaching to a rich yellow.

Big Boston or Mammoth Boston—Popular for cold frame forcing and outside culture. Medium, compact heads with

creamy yellow heart. Smooth, glossy leaves, edges wavy, and slightly tinged with reddish brown. 75 days.

Great Lakes—All-America award. An outstanding new Iceberg or Crisp-head type. A summer lettuce that stands heat well and is very resistant to tip burn. Heads medium size, solid, crisp.

Iceberg—Late, large variety. Compact heads, crumpled, crisp and sweet. Leaves light green, slightly brown on edges. 85 days.

Imperial No. 847 (Florida Iceberg)—Heads are of good size and solid. Does well in hot weather and is resistant to tip burn. Very hardy. 83 days.



NEW YORK LETTUCE

New York No. 12—The standard crisp-head lettuce. Large globular shaped head, dark green with blanching, silvery white heart. Successfully grown outdoors spring, summer and fall. 85 days.

White Paris Cos or Trianon—Medium large self-folding, dark green leaf shaped heads. Greenish-white, well blanched interior. 66 days.

Loose Leaf Varieties

Black Seeded Simpson—Light green, frilled and crumpled. 45 days.

Grand Rapids—Erect, compact plants. Light green, broad heavily fringed. For forcing or early planting outside. 43 days.

(Continued on Page 16)

"There ought to be a law!"

—says the Old Gardener

"Yessir, there ought to be a law that would make everybody grow a garden! Considering the state the world is in nowadays, a law like that would be a wonderful thing!

"Here we all are, grumbling and growling about food prices. And just outside our doors is the good earth, that can give us the finest of all answers to the situation! Here is Nature's age-old weapon for fighting hunger, just waiting to be used. If only enough people would use this weapon, a lot of our worries would melt away!

"After all, what wiser thing can a family do than get back to the soil for a part of its sustenance?

"Surely, the greatest bargain in the world is a handful of garden seed.

Here's one of those rare things that can still be bought for a few pennies, yet brings the buyer a golden return.

"It's a mighty good thing, then, that the seedsman is still on the job, ready to sell his amazing bargains to all comers . . . and ready too, to be a friend, guide, and counsellor to all who buy. There aren't many merchants like this left in the modern world!

"So here's the all-party platform for Spring:

"Now is the time for all good men to rally to the principle that 2 and 2 still make 4, that a man owes it to himself, his family, and his nation to grow food, grow health, and fight inflation right in his own back yard!"

HOW? WHEN? WHERE? WHY?



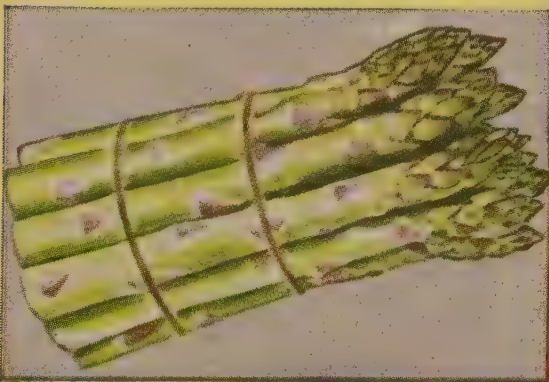
RADISH, Early Scarlet Globe



TURNIP, Purple-Top White Globe



CABBAGE, Early Jersey Wakefield



ASPARAGUS, Mary Washington



SQUASH, Zucchini

Transplanting

DON'T assume that transplanting is worth doing for itself alone. Transplanting is like an operation to a human being: the plant must recover from post-operative shock before it can take hold and start growing again. The only value in transplanting is that it allows you to use larger plants—important in short seasons. If there is ever any question as to whether to direct-seed or to transplant, always direct-seed unless quicker maturity is a factor. Even tomatoes, the crop most often transplanted, will usually produce as quickly from seed sown in the open as they will from transplants, which must grow new roots before they can begin growing again.

DO use good seedlings if you must transplant. They should be medium green in color, not too tall, and the leaves should be free from spots or dead areas. Avoid seedlings that are reddened or purplish in color, or show signs of yellowing (except in the case of celery plants, which can be quite yellow and still be good).

If you want to grow your own transplants to get healthy stock, follow these directions:

DON'T BEGIN too soon, unless you have a greenhouse or light hotbed and can give the seedlings plenty of room. For most vegetables, 6 to 7 weeks is time enough to allow between seeding and transplanting. Most homes are too dark, so don't try to grow seedlings unless you can do it in a sunny window that gets direct sunshine for at least six hours. Fill shallow boxes (flats) with a mixture of $\frac{1}{3}$ good garden soil, $\frac{1}{3}$ clean sand and $\frac{1}{3}$ compost, leaf mould or other well-rotted organic matter. Make very shallow rows or furrows with the edge of a ruler or a wood lath, 3" apart. Sow seeds in these rows 1" apart in the row. For most plants, a temperature of 70 degrees is a good compromise.

DON'T let your soil dry out, and don't let it be soggy. Spray lightly two or three times a day, using an atomizer or bulb sprinkler. When the best seedlings can be selected, thin out to stand 2" to 3" apart. Before transplanting into the garden, withhold water for 2 or 3 days. In transplanting, set the plants firmly by pressing on both sides of the stem with forefinger and thumb. If not firmed thoroughly, seedling may be killed by being hung with an air space underneath.

Always try to save as many leaves and roots as possible. Scientific tests show that it is better to allow the transplant to wilt slightly than to remove leaves to prevent that wilting. Removing leaves slows up manufacture of plant food that will help plant recover. Liberal watering should prevent wilting.

After Transplanting

As soon as the garden has been planted, water thoroughly but gently with a fine spray. This, by

the way, is the only time we sprinkle a garden; once the plants are established, any watering should give the soil a good soaking. If a crust forms after watering, break this by working with a hoe or cultivator on both sides of the row.

In the case of slow-germinating seeds like carrots and parsnips, mixing a few radish seeds in the packet will mark the row early. Otherwise you may have to delay cultivation until too late to do a good job of weed control.

DON'T take it for granted that cultivation will substitute for watering. Tests prove that pulverized soil loses just as much water after working as before. The real reason for cultivating is to destroy weeds. Weeds shade desirable plants, rob them of moisture and use up soil plant food.

Annual weeds are usually easy to kill if we can keep them from seeding. Deep-rooted perennial weeds, like bindweed and Canada thistle, are not so easy. The simplest way to control them is to take the land out of cultivation for a year and keep spraying with 2,4-D weed killer. If this isn't feasible, and if they must be controlled by cultivation, keep tops cut off every two weeks. Don't do this oftener, because otherwise the tops won't use up the stored food in the root. Don't do it less often, or the tops will manage to store new food.

Mulching Saves Work

Now that we know that a dust mulch allows just as much moisture to escape as bare, hard ground, cultivation should only be done to control weeds. A mulch, on the other hand, does what cultivation is supposed to do—it cuts down water loss from the surface and it also controls weeds. Any clean vegetable matter such as lawn clippings, chopped or whole straw or hay, ground corn cobs, peat, etc., can be used. Vermiculite, a mineral product used as house insulation and as poultry litter, has proved a valuable mulch because of its high water-holding capacity and insulating value.

Apply these mulches when the soil is still moist. If applied after the soil dries out, they fail to function. Remember—a mulch does not stop the use of water by the plants—it merely checks surface evaporation and keeps down weeds.

VEGETABLE SEED CULTURE

There's no end to the science of vegetable gardening—nor to the books that have been written about this fascinating subject. But if you haven't the time to read all the books, then try the brief paragraphs that follow. Here are the fundamental facts—the things every vegetable gardener should know—AND DO!

ASPARAGUS

Soak seed 24 hrs. before planting. Sow in loose, rich, moist soil after danger from frost is past. Thin to stand 6" apart. In early spring, set in permanent position, 24" apart, in rows 36" apart. Set in hole so that crown is 8" below surface, but only cover tips with 3" of soil. As plants grow, fill in until level. Don't cut first year after setting.

SNAP BEANS

Don't plant until danger from frost is over.

Sow beans in bottom of 3" to 4" furrow, 18" between rows, but do not fill in with more than 1" of soil over seeds. Thin to stand 4" to 6" apart in row. Bean seedlings are likely to break their necks pushing through heavy soil. In such soils, cover seeds with mixture of half sand and half soil, or sand and peat or any other loose, light material that will allow seedlings to break through easily. Make successive sowings every 2-3 weeks until 60 days before frost. Don't cultivate beans when wet; this may spread disease.

BUSH LIMA BEANS

Plant two weeks later than bush snap beans, when soil is warm. Space rows 24" apart; otherwise follow instructions for snap beans.

POLE BEANS and POLE LIMAS

Both these should be planted two weeks after bush beans. Rough poles set 3 feet apart should be used. Anchor well, as heavy bean-vines blow over easily. Sometimes three poles set to form a tepee are used and several seeds planted around each tepee.

SPECIAL NOTE ON ALL BEANS.

—Two scientific facts about beans will help produce better crops. First, being legumes, they should be inoculated with special legume culture listed in supply section. This enables plants to manufacture own nitrogen from the air. Second, bud drop of the tiny flowers (even before they can be easily seen) cuts the early set of pods. By spraying with FRUITONE these buds are held on and the early crop increased as much as 100%.

BEETS

Each "seed" is a fruit with several true seeds. No matter how thinly beets are sown, they will need thinning. Plant as soon as ground can be worked in spring, thin gradually (use thinnings as greens) until roots stand 4" apart. Make three sowings, one early, one three weeks later and one 60 days before frost is expected.

BRUSSELS SPROUTS

Grow like late cabbage, but don't use until after heads have been frosted.

BROCCOLI

Start plants indoors 5 weeks before last frost. Set out 12" x 24". Broccoli heads must be harvested before they bloom: they are inedible after yellow flowers appear. Direct-seed for late crop 60 days before frost is expected.

Special Directions for Controlling Insects in Cauliflower, Broccoli and Brussels Sprouts

Use Rotenone dust or spray. It must hit insects directly, so drive them out of inner head by dusting or spraying with light dose of Rotenone. Allow plant to stand for 10 minutes, then go back over the same row with a heavy dose of Rotenone. By this time the worms will be out on the surface and are sure to be killed. Repeat every 10 days.

Ask us how to control root maggots that harm cabbage, Brussels sprouts, onions, radishes, and turnips—also how to guard against the carrot rust fly.

EARLY CABBAGE

Start plants inside (see Page 14). Set out 12" x 24" as soon as frost danger is past. Dusting with D.D.T. is safe if outer leaves are discarded, since plant grows from the inside out.

LATE CABBAGE

Direct-seed four months before frost is expected, thinning to 24" x 36". Or start plant indoors (see Page 14) 30 days before needed, transplanting outdoors 90 days before frost. Don't water freely when heads are nearly filled, as this promotes splitting; irrigate only enough to keep plants growing well.

CELERY

Start in hotbed 60 days before needed. In setting outdoors, don't get soil in or over crown. Set 7" to 12" apart. Soil must be rich, moist and loose. As soon as plants have grown to 14" to 15" tall, set 12" boards on both sides of row and hold in place with earth. Or 4" drain tile can be used to blanch individual stalks.

Celery must have warm, settled weather: if chilled, plants are likely to go to seed.

CHINESE CABBAGE

Must never be grown as a spring crop since it will only go to seed. Plant after June 15th, as days are getting shorter: then it will head. An excellent succession crop to follow early peas.

COLLARDS

Follow directions for early cabbage.

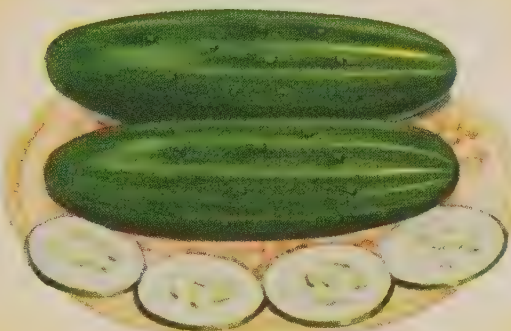
(Continued on Page 17)



BEANS, Improved Golden Wax



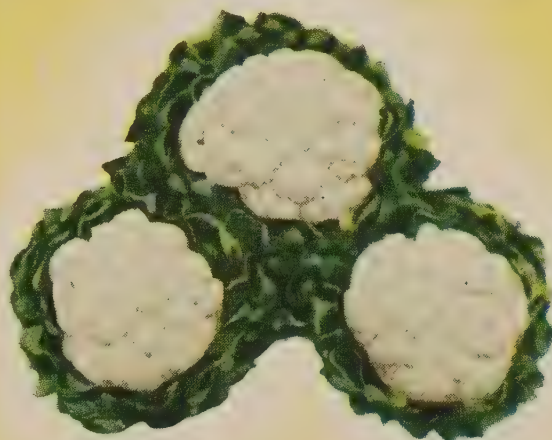
TOMATO, Stokesdale



CUCUMBER, Cubit



SQUASH, Early Prolific Straightneck



CAULIFLOWER, Early Snowball

LETTUCE, Continued

Oakleaf—The most popular leaf lettuce for home gardens. Rick, dark green leaves, tender and delicious. Outstanding resistance to hot weather.

Prizehead—Early non-heading sort. Medium sized plants, crisp and tender. Color light brown on a medium green base. Leaves frilled at edges, and crumpled. 47 days.



OAKLEAF LETTUCE

MANGEL WURZEL

(See Beets, Stock)

MELONS

Muskmelon and Cantaloupe

Requires long season to develop and is easily injured by frost, or even by cool weather. Before planting, spade in liberal forkful of well rotted manure in each hill. Thin plants to 4 per hill after third leaf develops, and train vines in different directions. Cultivate as long as possible. On moist ground use shingles to hold melons off ground to prevent rotting.

Bender's Surprise—Improved Surprise, similar to Tip Top. Coarse netted 7-lb., oblong fruit, distinctly ribbed, hard greenish-yellow skin. Flesh bright salmon. 95 days.

Hale's Best—Flesh thick, deep salmon-pink, sweet and tasty. Heavily netted rind, with faint stripe. Small seed cavity. Outstanding variety, resistant to powdery mildew. Weight, 4 lbs. 86 days.



PRIDE OF WISCONSIN CANTALOUPE

Hearts of Gold or Improved Hoodoo—Nearly round 2-lb. fruit, distinctly ribbed, deep green with fine grey netting. Thick, deep salmon flesh, tender sweet. 94 days.

Honey Rock or Sugar Rock—Round, 4-lb. fruit. Grey-green skin, coarse, sparse netting. Orange-salmon, thick flesh, fine flavor. 85 days.

Pride of Wisconsin—Small seed cavity and thick, orange flesh, excellent flavor. Matures early. Large size. A new melon which is deservedly becoming a leader. 92 days.

Tip Top—A home garden and local market variety. Large fruits, slightly oval, pale green skin, turning to yellow at maturity. Ribbed and slightly netted. Flesh bright salmon, sweet and delicious. 90 days.

WATERMELON

Requires about same culture as muskmelon, except the vines need more room. Fertilize each hill liberally and cultivate thoroughly.

Cole's Early—An early variety for the North. Medium size fruit, short oval with alternate dark and light green stripes. Pink-red flesh, black seeds and tender rind. 75 days.

Dixie Queen—Very prolific. Bright red, crisp, splendid quality fibreless flesh. Very few small, white seeds. 85 days.

Early Kansas—New variety, early. Large, oval, dark green with light green striping. Flesh solid deep red; texture fine; tender; delicious flavor. 80 days.

Kleckley's Sweet or Wondermelon—Large, cylindrical, dark bluish-green, with thin, tender rind. Bright red, juicy, sweet flesh, creamy-white seeds with traces of brown. 85 days.

Stone Mountain—Also called Dixie Belle. High quality shipping variety. Fruits very large, oval-round, blunt ends. Dark green, tough rind. Flesh rich scarlet, fine grained, sweet. Seed white with black tips. 90 days.

Tom Watson—Red heart strain. Large fruit, uniform cylindrical, with tough, elastic rind, faintly veined. 90 days.

MUSTARD

Sow as early as possible in the spring. Keep rows 6" to 12" apart and cover with soil 1/2" deep. You may also sow seed in autumn to raise greens and for salads.

Fordhook Fancy—Upright growing, mild variety. Bright green leaves, plume-like and deeply fringed on the edges. 50 days.

Mustard Spinach or Tendergreen—Wholesome, quick-growing green, combining mustard and spinach flavors, 28 days.

OKRA OR GUMBO

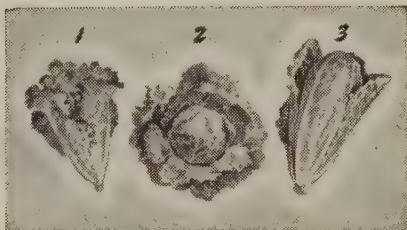
Sow in rows about 3' apart. Cover seeds with about 1" of fine soil firmly pressed down. Thin plants 18" to 24" apart when they reach 3" growth. Do not plant until ground is warm, as this is a tender, hot weather plant. Pick before woody fibres develop.

Dwarf Green—Early, prolific dwarf growing sort. Dark green fluted, 5 to 7-in. pointed pods. Most desirable, compact growing okra. 50 days.

Perkin's Mammoth Long Pod—Early and prolific. Very tender, long pods. Deep green and slightly corrugated. 68 days.

White Velvet—Early and prolific. Pods pale greenish-white, 6 to 7-in. long. Meaty, tender. Strong, tall-growing, 3 1/2 feet in height. 62 days.

The Old Gardener on LETTUCE



The kind of lettuce you can grow at home — really crisp, fresh leaf lettuce—is the kind every master chef sighs for and can't get. As soon as your soil is workable, plant a row of black Seeded Simpson, or Oak Leaf. Or if you like head lettuce, try Big Boston, a butterhead full-flavored kind you can't buy on the market.

Hot weather is hard on most lettuce, but try Great Lakes: you'll be surprised how well it grows and how slowly it bolts to seed. And you'll be delighted

with its good crisp head lettuce flavor. For a real treat, try Oak Leaf. It combines the wonderful flavor and quality of leaf lettuce with the productivity and crispness of head lettuce. If allowed to stand, it produces loose heads.

Remember that lettuce is a fast-growing, rich feeding crop. Give it plenty of water. And use your compost or well-rotted manure liberally on the lettuce row. A light sprinkling of nitrate of soda will pay, too, because lettuce thrives on lots of nitrogen.

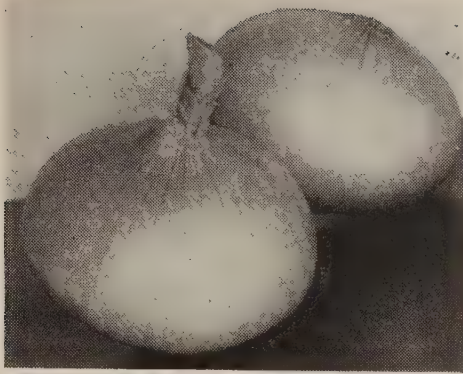
ONIONS

Plant as soon as soil can be prepared. For best yield, plant on very fertile land—fall plowed, and thoroughly fertilized. When plants are a few inches tall, thin to prevent crowding—using the plants removed as green onions. Those left to become fully ripe can be stored for winter. Cultivate and hand weed every 2 weeks during summer.

Prizetaker—Large, globe shaped, with glossy, thin straw-colored skin. Coarse, mild flesh. Sometimes weigh as much as 4 lbs. each. 102 to 104 days.

Yellow Sweet Spanish—Large, globe-shaped, exceptionally mild and sweet—excellent for eating raw or boiled. Light yellow skin and pure white, firm, crisp, and tasty flesh. 112 days.

Yellow Globe Danvers—An oval shaped, straw-colored onion. White flesh, crisp and mild. Splendid keeper. 110 days.



WHITE PORTUGAL ONION

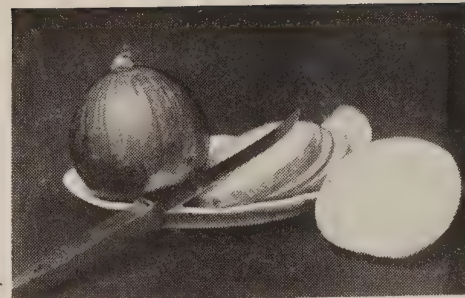
Southport White Globe—Best of the whites. Medium-sized, round, solid white bulbs, fine thin skin. Waxy white flesh, mild and fine grained. Keeps well in fall. 110 to 112 days.

White Sweet Spanish—Pearl-white color, mild flavor. Solid and crisp. Largest of the white onions. 110 days.

White Bunching—A good Spring appetizer. Crisp and mild. A fine white onion for cooking when grown larger. 60 days.

White Portugal or Silverskin—Excellent flat variety. Dependable cropper, excellent for sets, for green bunching, or as a pickler. 100 to 102 days.

Southport Red Globe—Finest of all red onions. Perfectly round, good sized bulbs with thick, small necks. Skin is deep purplish-red. Strong flavored flesh, white tinged with pink. Good keeper, productive. 112-114 days.



SWEET SPANISH ONION

ONION SETS

Onion sets used instead of seeds will produce earlier crops of green onions or large bulbs. Plant sets right side up and cover with garden rake; then firm the soil well over the sets.

The quickest way to get onions early. We offer choice, select, dry sets, of the highest quality. (Prices on application.)

RED

WHITE

YELLOW

ONION PLANTS

Sturdy, hardy plants that come to you all ready to set out. Ask for prices.

All Vegetable Seeds
10¢ PER PACKET
UNLESS OTHERWISE NOTED

HOW? WHEN? WHERE? WHY?

(Continued from Page 15)

SWEET CORN

For the home gardener, the simplest way to plant sweet corn is in rows or drills, not in hills. Space the rows 36" apart, and plant a seed about every 3". Thin stalks to stand 12" apart in row. The drill should be 3" to 4" deep, but don't cover seed with more than 1" of soil. The drill or furrow can be filled in as the plants grow to anchor them against wind.

Removing suckers has been standard practice with practically all growers. Now, experiments prove that removing suckers merely takes away extra food-producing leaves and so hurts rather than helps growth. Also, suckering often disturbs roots enough to injure plant.

Always plant corn in several short rows side by side rather than one long row. Corn is pollinated by wind and rows side-by-side mean that all the stalks can be reached by the pollen. Many home gardeners, on reading newspaper accounts of corn de-tasseling assume that this is necessary to set ears. On the contrary removing tassels may cut the crop seriously. Detasseling is *only* done where hybrid corn is raised for seed purposes. The more pollen that flies, the better the set of kernels. So *don't* detassel sweet corn in the home garden.

If weeds are under control, stop cultivating. If weeds are bad late in the season, work the soil as shallow as possible to avoid injuring surface feeder roots.

CUCUMBERS

Sandy soils with plenty of compost are best. Roots have difficulty on heavy soils. Plant 8 to 10 seeds in a hill (see Page 11—A HILL IS A HOLE). When vine is 6" long, thin to three strongest plants. Keep fruits picked to promote continuous fruiting. If compost isn't available, feed with commercial fertilizers. Use plenty of moisture: cucumbers are 90% water.

EGGPLANT

Start seed indoors 8 weeks before plants are needed. Set out after apple blossoms have fallen and weather is warm and settled. Feed and water liberally as Eggplant needs to be kept growing rapidly to produce well. D.D.T. will control pests that until now made this a tricky crop to grow.

ENDIVE

Strictly a cool-weather crop: gets bitter at temperatures much above 80°. Plant very early and again in mid-July. Use last planting as late fall salad crop, and store surplus in cold frame or cellar by digging each plant with ball of soil. Space 12" apart in rows 18" apart. Feed liberally for bigger, crisper heads.

KALE

Grow like Brussels Sprouts.

KOHLRABI

Wants rich soil. Plant early in spring 4" apart in row. Must be used when young: woody when old. Make second planting 3 weeks later, and again after mid-July.

MUSKMELON

Plant 8 to 10 seeds to a hill (see above —A HILL IS A HOLE) after weather is warm. If grown in cool weather will not bear well and melons will have poor flavor. Melons love plenty of compost or well-rotted manure. When vines begin to run, thin to 3 plants to a hill. On heavy soil, Bender's Surprise or Hearts of Gold do better than others. In damp soil mulch with clean straw or raise each fruit on a shingle to keep from rotting.

OKRA

Plant on rich soil when weather is hot and settled, spaced 12" x 24". Pods mature rapidly and must be picked or they will be inedible.

ONIONS

Sets produce sooner than seeds. Set 1" apart and pull every other set for

Practical answers to every-day questions about home gardening

use as green onions. Again pull every other onion, leaving balance of sets to mature as dry onions.

From seed, onions have better flavor. Green onions can be grown in about 60 days from seed. Use thinnings for green onions, leaving 4" apart for globe types and 6" for the big Spanish types to mature for dry onions. Latter can also be started indoors for largest bulbs and can be set out 6" apart after frost danger has passed. All onions need liberal feeding and watering.

PARSLEY

Seed germinates slowly; soak over night. Sow early as seed germinates poorly in hot weather. Space plants 8" apart. Plain parsley has best true parsley flavor: curly sorts better for garnishing. If leaves are cut off when plant is 4" tall, curly sorts will have better curl.

PARSNIPS

Must be planted as early as ground can be worked. Soil must be loose to a depth of 12" and cannot be heavy. Space 5" apart. Frost turns starches into sugar and improves flavor. Roots are hardy: leave in ground over winter if desired.

PEAS

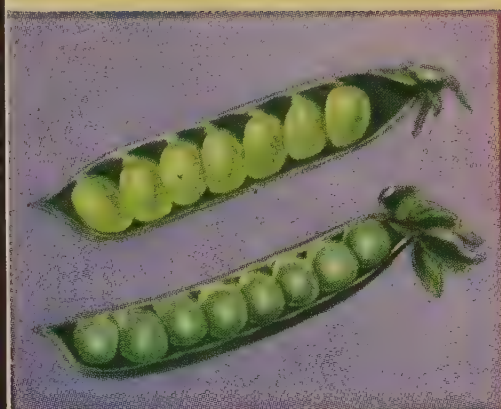
Plant variety Alaska as soon as ground can be dug. Plant wrinkled varieties (which have better flavor) when narcissus buds show color or when crocuses are in bloom. Peas are not satisfactory when weather turns hot. Tall varieties must be staked. Most home gardeners prefer dwarf varieties like Little Marvel. Peas want well-limed soil. Don't forget, inoculation improves production.

PEPPERS

Need long growing season: start indoors 8 weeks before plants are wanted. Set out after petals on apple blossoms have fallen. Set plants 15" x 24" and feed liberally for bigger fruits.

PUMPKINS

Follow muskmelon culture, or plant in corn after last cultivation.



PEAS, Little Marvel (top)
Laxton's Progress (bottom)



PEPPER, California Wonder Improved



BEANS, Bountiful



TOMATO, Marglobe



RADISHES, Icicle and French Breakfast



TOMATO, Rutgers

HOW? WHEN? WHERE? WHY?

(Continued from Page 17)

RADISHES

As a rule the first crop to mature: plant as early as soil can be dug. Feed liberally for quick growth. Sow a 10 foot row every ten days until weather turns warm. Start planting again with the coming of cool weather in fall. The fall and winter types are sown in mid-summer to mature in fall for storage.

SPINACH

Seed in fall (protect with straw) or in very early spring. Must mature before hot weather.

Spinach (New Zealand)

While this crop grows freely in hot weather, it will not germinate except when soil temperatures are below 70 degrees. Hence it should be sown with the half-hardy crops—those that are planted when the narcissi bloom. Plant in soil with plenty of organic matter, spacing the plants about 3 feet by 3 feet. Keep them cut back, since only the young growing tips are eaten and long, woody stems have little flavor. Many who have tried a mixture of half Swiss Chard and half New Zealand Spinach say that this is better than either vegetable alone.

SQUASH

Follow culture given for muskmelon for vine types. Grow bush types in rows, spaced 24" apart. Keep picked. Will bear all summer.

TURNIPS

Follow directions for radishes. Thin- nings can be cooked for greens.

TOMATOES

There are two schools of tomato culture—those who stake and those who don't. Reasons for and against are as follows:

FOR STAKING: While staked plants produce fewer fruits per plant, they produce more tomatoes for a given area. So if room is at a premium, it will pay to stake. Staked plants usually produce cleaner fruits and bear somewhat earlier.

AGAINST: Staking calls for much extra labor in staking, tying and pruning. The total production per plant is higher in unstaked and unpruned plants. If you have plenty of room, the saving in labor makes the unstaked method the best. All commercial canning crops of tomatoes are grown in this way. If the ground under the vines is covered with a mulch of clean straw, this will improve the quality of the fruits and will also keep weeds down and save moisture.

When staking, set plants 18" apart in the row, in rows 3 feet apart. Use a 7 foot stake, driven 1 foot into the ground. Tie plant to stake with soft twine or other plant tie. Habit of growth calls for a side shoot from the first point where a leaf joins the main stem, another side shoot from the second leaf joint, and a flower cluster from the third joint. This 2-1 pattern of growth is repeated up the entire

Practical answers to every-day questions about home gardening

stem. The staked plant is allowed to grow from the tip, and as it grows, the stem is tied to the stake. As the side shoots appear, these are pinched out or rubbed off, leaving the flower clusters to produce fruits. When training tomatoes to stakes, be sure to leave all possible foliage to hide the fruits from direct sunshine; otherwise they will sunscald.

Tomato diseases have been on the increase lately. For this reason, planting disease resistant varieties like Rutgers, Pritchard and Marglobe is good business. Planting outside when the weather is cold and wet encourages disease by favoring the growth of aphids, which multiply at lower temperatures than do their enemies. Aphids spread virus diseases. By delaying planting until the weather is really warm, much of this type of injury can be prevented. Dusting with Tomato Dust helps control fungus diseases.

Blossom end rot and cracking at the stem end are due to variation in water supply. Don't allow water in soil to fluctuate any more than you can help. Don't water freely for a time and then stop. If you start watering, keep it up at regular intervals. A heavy mulch of straw not only helps prevent violent fluctuations in water supply, but helps keep the fruit clean if the vines are not staked. When grown without staking, the vines will sprawl on the ground. This means they will need more room. Three feet between plants and four feet between rows will not be too much ground to use if you can spare the room.

PARSLEY

Does best in rich, mellow loam. Seed is slow to germinate, and is helped by soaking in warm water over night before planting. Sow early and not too deeply. When curled varieties are about 3" tall, cut off leaves. The new growth will be brighter and curlier.

Moss Curled or Triple Curled—Compact, dark green leaves, curled and fine-cut. 70 days.

PARSNIP

Plant in rich, sandy loam, thoroughly pulverized. Seed requires plenty of moisture for germination and should be sown early. Dig after a killing frost. Freezing improves parsnips, so some can be left in the ground all winter and used in spring. For storage, bury in dry sand.

Hollow Crown (fr)—The most generally grown kind. Roots 2½ to 3-in. thick at shoulder. 12 to 14-in. long, uniformly tapered, hollow crowned. 95 days.

PEAS

Early peas need a light, warm soil; but general crop thrives best in moderately heavy soil. (Avoid fresh manure and very rich or wet, mucky soil as this produces large growth of vine at the cost of quality of the peas.) Plant seed in rows at 2" depth. Keep rows 21" to 28" apart for dwarf varieties and 28" to 42" for the taller types. Gather crop as fast as it is fit to use or new pods will cease to form and those partly advanced will cease growth.

Early and Second Variety

Alaska—Wilt resistant. Used for canning and early home garden. Blunt, straight, light-green, 3-in. pods. Plants 32-in. 60 days.

Laxton's Progress (fr)—Medium dark green vine, 16 to 18-in. Single pods almost an inch wide and 4½ to 5-in. long, with 7 to 9 large peas. 62 days.

Little Marvel (fr)—Outstanding, dwarf. Fine quality, large yield. Single and double, dark green, 3-in. pods—blunt, plump, well filled with 7 to 8 medium sized, light green tender peas. 62 days.

Thomas Laxton (fr)—Medium height. Strong vine bears numerous dark green, blunt ended pods, 4 to 4½-in. Retains flavor and sweetness. One of earliest. 57 days.



THOMAS LAXTON PEAS

Later Varieties

Dwarf Telephone or Daisy—Large pods 4½-in. long, broad, straight and pointed, containing 7 to 9 large round peas. Vines about 24-in. tall. A popular main-crop pea. 79 days.

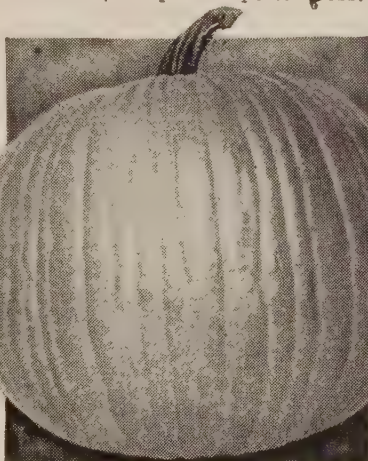
Alderman or Dark-Podded Telephone (fr)—Large podded variety of the Telephone family. Excellent for home gardens, truckers, shipping to distant markets and for freezing; resistant to Fusarium wilt. Vine dark green, coarse. Pods single, very broad, plump, straight, dark green, pointed; contains 8 to 10 peas of highest quality. Seed large, wrinkled, light green. 74 days.

Edible Podded or Sugar

Mammoth Melting Sugar—Wilt resistant. Coarse light-green vine, 54-in. Single 4½-in. pods, broad, indented, light, blunt, stringless, without fiber, fleshy. Contains 7 peas. Seed large, round, creamy-white. 74 days.

PEPPERS

Warm, mellow soil in sheltered location is best. Start under glass. Cultivate regularly, drawing soil up around stems. When plants are 7" to 8" tall, hoe in light dressing of commercial fertilizer. Do not plant hot peppers near sweet; they are apt to cross.



CONNECTICUT FIELD PUMPKIN

Sweet

California Wonder Improved—Number one quality peppers, about 4-in. long and 3½-in. diameter, very smooth, 3 and 4 lobed, glossy green, turning bright crimson when ripe. Remarkably thick walls, tender, sweet. 75 days.

Pimento or Perfection—Best of the medium sized sweet peppers. Excellent for stuffing. Smooth, heart-shaped, about 3-in. long. 125 days.

Ruby King—All-America, bred for size and uniformity. Medium size plant, erect and productive. Dark green turning to bright deep red fruit. Thick flesh, sweet and mild. 60 days.

World Beater—One of the best large peppers. Glossy-green, changes to bright red. Mild, very sweet, thick flesh. 75 days.

Hot

Hungarian Wax—Slender, waxy yellow fruit about 6-in. long, turns red when ripe. Very hot. 65 days.

Long Red Cayenne—The hot favorite. For canning, pickling, drying. Pungent flavored fruit, tapering and twisted. 70 days.

Red Chili—Low, spreading, 18-in. plant. Extremely pungent fruit. Erect, conical. 82 days.

PUMPKIN

Plant in middle of spring among corn; or in hills 8' apart each way. Drop 4 seeds to a hill. If planted in hills, cultivate the same as melons and cucumbers. For winter use gather before frost (leave stem 3" to 4" long) and store in warm, dry place.

Connecticut Field—Large fruit with flat ends, 15 to 25-lbs. and up to 15-in. Surface, slightly ribbed, deep orange. Thick flesh, orange-yellow, sweet and coarse. 118 days.

Kentucky Field or Large Cheese—Dull orange, large ribbed fruit. Coarse, deep yellow flesh, good flavor. 120 days.

King of the Mammoth—Largest of all pumpkins. Valuable for stock feeding and exhibition. Globular, slightly ribbed, flattened, weigh 60 to 90-lb. Flesh solid, yellow-orange, coarse, but good quality. 120 days.

Small Sugar or New England Pie—Desirable for pie or general use. Round, flat end fruit, deep orange. Thick, yellow-orange flesh. 118 days.

Striped Cushaw—For stock feed. Crook-necked, 11-lb., white and green striped, thick, coarse yellow meat. 112 days.

WHEN TO SOW . . . by Nature's Calendar

Man-made seed catalogs and books usually give planting dates and directions on a calendar basis. We'd like to do this, too, but our experience has taught us that such arbitrary dates are dangerous. Weather variations from year to year are likely to make the most carefully compiled dates go wrong. That's why we suggest you follow natural planting dates, which take into account the variation from year to year. While they are not 100% infallible, they are far more accurate than the calendar.

FULLY HARDY CROPS

Sow as soon as you can work the ground in spring, or when the farmer is planting oats. In some years, crocuses, snowdrops and winter aconites may be in bloom, but if the soil is workable before they appear, don't wait—plant as soon as you can. Even if the soil freezes over the seed, the following vegetables will start growing when it thaws again; Brussels sprouts, Broccoli, early Cabbage, Cauliflower, Collards, Cress, Endive, Kale,

Kohlrabi, Lettuce, Mustard, Onion sets, Parsley, Parsnips, Alaska Peas, Radishes, Salsify, Spinach and Turnips. All of these can be seeded in fall (just before the ground freezes for the winter) and should give fair results in spring.

HARDY CROPS

Plant these when earliest tulips and narcissi bloom, when maple trees flower and when forsythia shows signs of fading: Beets, wrinkled Peas, Swiss Chard Leek, New Zealand Spinach, Onion Seed, Spinach. Take a chance on an early planting of Sweet Corn.

TENDER CROPS

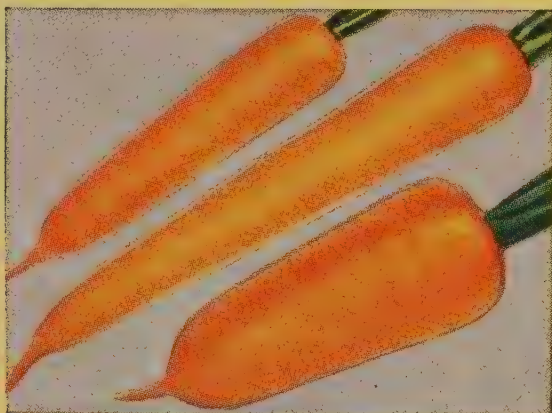
Plant when Darwin tulips, lilacs and apple trees are in full bloom: Bush Beans, Sweet Corn, Pumpkins, Summer and Winter Squash.

TROPICAL VEGETABLES

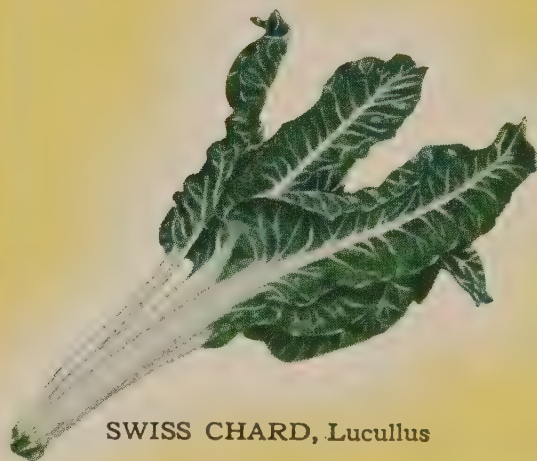
When the petals on apple blossoms fall, and when the late tall irises are in full bloom, plant the following: Lima Beans (bush and pole) Pole Snap Beans, Muskmelon, Okra and Watermelons. Now is the time to set out all greenhouse-grown plants of tender vegetables like Peppers, Eggplant and Tomatoes.



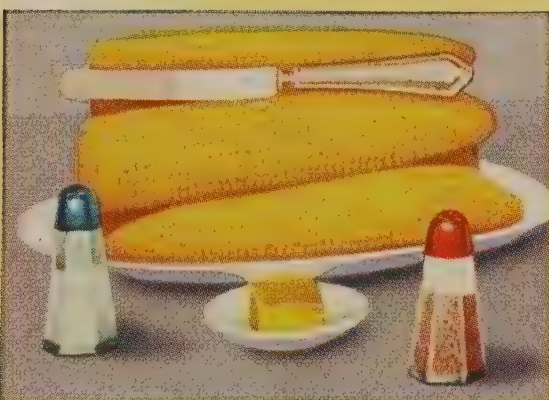
TOMATO, Pritchard (Scarlet Topper)



CARROTS, (top) Danvers Half Long, (center) Emperor, (below) Chantenay



SWISS CHARD, Lucullus



CORN, Golden Cross Bantam



20 LETTUCE, Black Seeded Simpson

Planting Guide

FOR VEGETABLE GARDENS

	Seed Required for 50 Ft. of Row	Distance Between Rows (Inches)	Distance Apart in Row (Inches)	Depth of Planting (Inches)	Approximate Yield per 50 Ft. of Row	Seed Required Family of 5
Artichoke	1/8 oz.	36 to 48	18 to 24	1/4		
Asparagus	1/2 oz.	14 to 24	3 to 6	1	25 lbs.	1/2 oz.
Beans, Bush	1/2 lb.	24 to 30	2 to 3	1 1/2 to 2	20 qts.	2 lbs.
Beans, Bush Lima	1/2 lb.	18 to 24	2 to 3	1	32 qts.	1 lb.
Beans, Pole	1/2 lb.	36 to 48	6 to 8	1 1/2 to 2	30 qts.	1 lb.
Beans, Pole Lima	1/4 lb.	36 to 48	6 to 8	1 1/2 to 2	1 1/4 bu.	1 lb.
Beets, Table	1/2 oz.	14 to 24	3 to 4	1/2 to 1	1 1/4 bu.	2 oz.
Beets, Mangel	1/2 oz.	20 to 28	3 to 4	1		
Broccoli, Heading	1/8 oz.	24 to 30	24	1/2	50 head	1 pkt.
Brussels Sprouts	1/8 oz.	24 to 30	12 to 18	1/2	15 qts.	1 pkt.
Cabbage	1/4 oz.	18 to 36	14 to 24	1/2	35 to 50 head	1/4 oz.
Chinese Cabbage	1/2 oz.	18 to 24	12 to 15	1/2	40 to 50 head	1 pkt.
Carrots	1/4 oz.	16 to 24	1 to 3	1/2	24 qts.	1/2 oz.
Cauliflower	1/4 oz.	24 to 30	20 to 24	1/2	25 to 30 head	1 pkt.
Celery	1/8 oz.	24 to 40	4 to 6	1/4	75 to 100 stalks	1 pkt.
Collards	1/4 oz.	24 to 30	14 to 18	1/2	3 bu.	1 pkt.
Corn, Sweet	4 oz.	30 to 42	9 to 12	1	100 ears	1 lb.
Corn, Pop	3 oz.	34 to 40	6 to 8	1		
Cucumber	1/2 oz.	48 to 60	12 to 36	1/2 to 3/4	75 to 100 fruit	1/2 oz.
Dill	1/4 oz.	18 to 36	4 to 8			
Egg Plant	1/8 oz.	24 to 36	18 to 24	1/2	70 to 80 fruit	1 pkt.
Endive	1/2 oz.	18 to 24	8 to 12	1/2	50 to 60 plants	1 pkt.
Kale	1/2 oz.	24 to 32	14 to 22	1/2	50 plants	1 pkt.
Kohlrabi	1/4 oz.	14 to 24	4 to 6	1/2	1 bu.	1 pkt.
Leek	1/4 oz.	12 to 42	2 to 4	3/4		1 pkt.
Lettuce	1/4 oz.	12 to 18	4 to 12	1/4	25 lbs.	2 oz.
Muskmelon	1/2 oz.	70 to 80	36 to 60	3/4	50 to 60 fruit	1 pkt.
Mustard	1/4 oz.	14 to 24	6 to 9	1/2	1 to 1 1/2 bu.	1/2 oz.
Okra	1 oz.	36 to 48	24	1	450 pods	1 pkt.
Onion	1/4 oz.	18 to 24	3 to 4	3/4	1 bu.	1/2 oz.
Onion (for sets)		12 to 14	not thinned	3/4	30 scallions	
Onion sets	1 pt.	12 to 18	2	1	60 bunches	1 qt.
Parsley	1/4 oz.	12 to 20	6 to 8	1/2	45 bunches	1 pkt.
Parsnips	1/2 oz.	18 to 24	3 to 4	1/2	1 bu.	1/2 oz.
Peas	3/4 lb.	24 to 36	1 to 2	1 to 2	30-50 qts. pods	3 lbs.
Peppers	1/8 oz.	20 to 30	18 to 20	1/2	25 doz. peppers	1 pkt.
Pumpkin	2 oz.	96 to 108	60 to 84	3/4	25 to 35 fruit	1 pkt.
Radish	1/2 oz.	12 to 18	1 to 2	1/2	50 bunches	3 oz.
Rhubarb	1/2 oz.	24 to 48	18 to 24			
Rutabaga	1/8 oz.	18 to 24	6	1/2 to 1		1 pkt.
Salsify	1/2 oz.	18 to 24	2 to 4	1/2		1 pkt.
Spinach	3/4 oz.	14 to 18	3 to 5	3/4	1 1/2 bu.	1 oz.
Spinach, N.Z.	1/2 oz.	30 to 36	12 to 18	1	35 to 50 lbs.	1 oz.
Squash, Summer	1/4 oz.	36 to 48	48 (4 seeds)	1	60 to 70 squash	1 pkt.
Squash, Winter	1/4 oz.	72 to 90	72 (4 seeds)	1	35 to 40 squash	1 pkt.
Swiss Chard	1/2 oz.	12 to 18	4 to 6	1	25 lbs.	1 oz.
Tomato	1/6 oz.	40 to 60	36 to 40	1/2	2 bu.	1 pkt.
Turnip (roots)	1/4 oz.	18 to 24	2 to 4	1/4	1 bu.	1/2 oz.
Turnip (greens)	1/2 oz.	12 to 18	2 to 4	1/4	1 1/2 bu.	1 oz.
Watermelon	1/2 oz.	72 to 96	72 to 96	3/4	20 fruit	1 pkt.

RADISH

Soil should be light, quick and rich to insure rapid growth. Slow growth makes the flavor too strong. Sow as early as ground can be worked, as Radishes are very hardy. Make successive sowings up to hot weather. When in the third leaf, thin to give roots plenty of room. Pull promptly when mature. The secret of crisp, delicious radishes is quick growth, prompt picking.

Crimson Giant—Large round, 1 to 1½-in. Deep crimson roots. Very crisp and tender for its size. 28 days.

Early Scarlet Globe—Globular, slightly elongated, bright scarlet. 24 days.

Early Scarlet Turnip. White Tipped—Carmine red with white tip. Flesh white, crisp and mild. 26 days.

French Breakfast—Roots thicker toward bottom. 1½-in. long by ½ to ¾-in. Dull scarlet, white tipped. 25 days.

White Icicle—Tapering roots 5 to 5½-in., very white with pure white, mild flesh. 27 days.

Fall and Winter Varieties

Celestial or Chinese White Winter—White flesh, rather mild in flavor. Roots large, 8" long and 2½ to 3 inches in diameter, cylindrical with heavy shoulder. 60 days.

Chinese Rose Winter or Scarlet China—Popular, very distinct winter sort. Good for late salads. Cylindrical blunt, smooth, bright rose-red. Flesh white, very firm and pungent. 52 days.

Long Black Spanish—Good keeping winter variety. White, crisp and pungent. 8 to 9 in. long, slightly tapered. 58 days.

RUTABAGA

(See Turnip)

SALSIFY

Light, rich soil best and it must be stirred to a considerable depth. Sow in rows 18" apart. Cover seeds firmly with ½" of fine soil and thin plants later to 2" to 3" apart in the row. Cultivate the same as parsnips or carrots.

Mammoth Sandwich Island—A palatable and nutritious vegetable when cooked. Flavor is remarkably similar to oysters. 120 days.

SPINACH

Plant very early in spring—or start seed in fall (giving it protection by 3" of straw over the winter) and enjoy an early spring crop. Cut all spinach before hot weather as it doesn't do well in extreme heat. Sow again in August or September for fall crop. Spinach should be gathered before the flower spike appears.

Bloodsdaile Savoy, Long Standing (fr)—A few days later than regular Bloodsdaile Savoy. Holds from 12 to 14 days longer. 42 days.

Giant Nobel or Giant Thick Leaf—Large, vigorous, spreading plant, slow to form seed stalks. Heavy yielder. Large, thick, smooth, deep green leaves. 45 days.

New Zealand—Thrives in dry, hot weather. Can be picked repeatedly all

season. Not a true spinach, but similar when cooked. 70 days

SQUASH

Very sensitive to cold so delay planting until warm weather. Follow same care in planting and culture as for cucumbers and melons. Plant summer varieties 6 or 8 seeds in hills 3' to 4' apart each way and winter squash 8' apart. Plants bear longer if squash is picked off as soon as it is ready for use.

Summer Varieties

Early Prolific Straightneck (fr)—Earlier, smaller, and more productive than Giant Summer Straightneck, and more uniform. Brilliant yellow. Fine for home or market. 50 days.

Early White Bush Scallop—Fruits greenish when young, become white at maturity. 3-in. long, 7½ to 8½-in. wide. 53 days.

Giant Summer Crookneck—Prolific, bush type plant, curved neck fruits around 4 to 5-lb., 20 to 24-in. long. 4 to 5-in. diameter. 56 days.

Zucchini—Straight, cylindrical fruits, 3 to 4 lb., 5 to 5-in. through, 10 to 14-in. long. Mottled and striped green-creamy-gray. Delicate flavored flesh. 60 days.

Fall and Winter Varieties

Butternut—Deep buff-colored, bottle-shaped fruits. Smooth, hard shell. Solid fine textured flesh, that is deep yellow, dry, sweet, with excellent flavor. 12-in. long, upper or neck section 3½-in. diameter. 85 days.

Golden Table Queen—All-America medal. Skin is deep golden, flesh orange, dry, fine flavor and texture.

Improved Green Hubbard (fr)—Most widely grown of any winter squash. Round, warted, dark green with thick yellow flesh. Weight 12 to 14 lbs. 100 days.

Table Queen or Des Moines (fr)—Acorn-shaped, green, deeply furrowed; flesh rich yellow, dry, mealy, delicious. Convenient size for baking and serving in halves. 100 days.

SWISS CHARD

(See Beets, Leaf)

TOMATOES

Do best in sandy, well pulverized loam. Sow seed in hotbed or indoors. When plants are about 2" high, set out, 3" apart, in boxes or pots—later transplant into the garden. Or keep in flats until all danger of frost is past, and then set plants out directly into the garden. Water around the roots of the plants when setting them out, if ground is dry. Cultivate frequently until plants shade the ground. Remove all but the two or three strongest branches. Study methods of staking and training vines and adopt the one best suited to your situation.

Beefsteak—Rich scarlet-red, extra large fruits, more or less ribbed. Juicy, solid, with rich sub-acid flavor. One of the best for home use. 90 days.

Bonny Best—Second early variety, valuable for canners. Medium-vine, not very hardy. Medium-sized, apple-shaped, solid fruits, bright scarlet. 73 days.

Earliana—Open, spreading, medium small vines. Red fruits run to medium size. This seed is selected for thick, smooth fruit. 66 days.

John Baer—Thick, scarlet (similar to Bonny Best). Smooth, firm, medium large fruit. 70 days.

Jubilee—Orange colored fruit. Juicy with few seeds. Weighs about 6 oz. Bears over a long season. 72 days.

Marglobe—Moderately productive, with heavy foliage. Vigorous and resistant to wilt and rust. Fruits medium large, nearly round, smooth, and solid. Deep red. 77 days.

Ponderosa—One of the largest varieties. Spreading large vines. Solid, fine flavored, pink, with small seed cells. Somewhat rough and flat. Have a tendency to crack. 88 days.

Pritchard's, Scarlet Topper—Medium to large, round, with thick, firm flesh and small seed cavities. Brilliant red throughout, coloring right to top, without hard green spots. Free from acidity, one of the best home canners. Early.

Continued on Page 23

The Old Gardener on TOMATOES

Tomatoes are the Number One crop in home gardens, raised by almost everybody. For some good information on how to grow them, see Vegetable Seed Culture.

If you had trouble with disease, as so many folks did last year, try some of the newer disease-resistant kinds like Marglobe, Pritchard, and Rutgers. Even folks who don't like tomatoes ordinarily will go for Jubilee, the big orange variety that looks just like a California orange. It's as mild in flavor as an apple and full of natural sugar. Try slicing it on the same plate as the red varieties.

To stake or not to stake is often a question. If you do insist upon staking, don't use Earliana or Pritchard, since

they won't make enough vine for this method of training.

Above all, if you do grow early varieties, be sure to add one of the heavy producing main crop sorts like Rutgers so you'll have plenty of tomatoes for canning and for use when the early varieties are through.

Feeding: The safest plan for feeding tomato plants is to use balanced plant food. Apply it as a side dressing at regular intervals. Don't use poultry manures. They cause a long, sappy plant growth, with very little fruit. If any animal fertilizers are used, they need balancing—by addition of superphosphate and muriate of potash. Without these necessary elements, the crop may be poor.



A Portrait Gallery of Garden Insects

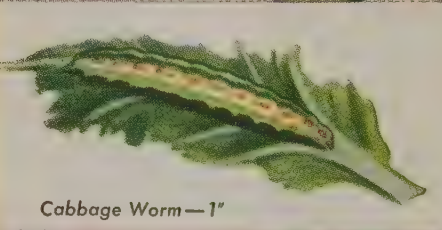
We are proud to present a series of true natural color portraits of common garden insects. USE THESE PICTURES to identify pests in your garden. Report them to us by name. We'll prescribe the right insecticides



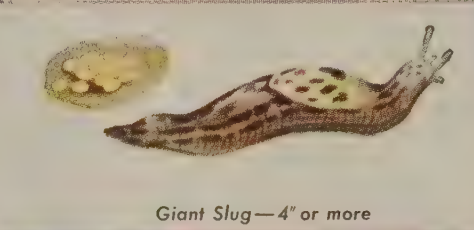
Cutworm—1-3/4"



Tomato Hornworm—3" to 4"



Cabbage Worm—1"



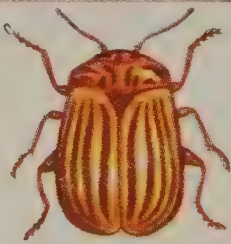
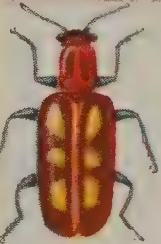
Giant Slug—4" or more



Japanese Beetle—1/2"



Mexican Bean Beetle—5/16"

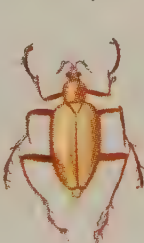


Parsnip Beetle—7/32"

Potato Beetle—3/8"

Potato Flea Beetle—1/16"

Bean Weevil—1/8"



Chinch Bug—3/16"

Tarnished Plant Bug—1/4"

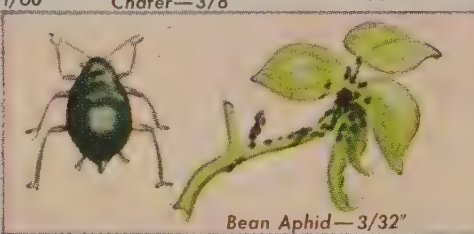
Red Spider Mite—1/60"

Rose Chafer—3/8"

Beet Leafhopper—1/8"



Melon Aphid—3/32"



Bean Aphid—3/32"



Squash Bug—5/8"



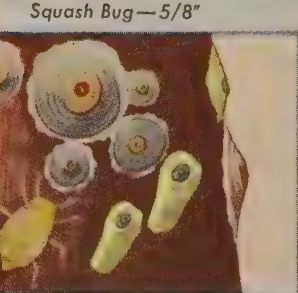
Sow Bug—1/2"



Mealy Bug—3/16"



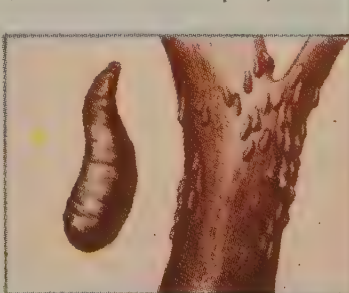
Gladiolus Thrip—1/16"



San Jose Scale



Corn Earworm—2"



Oyster-shell Scale



"TOGETHER we can beat 'em!"

Garden insects really aren't so tough—when you get to know them!

Once they are identified, there's almost always a quick way to defeat them.

That's why we have brought you this unique series of portraits of commonly encountered enemies of the garden. (We have pictured them in full, natural color, so that there may be no mistake in your identifications.)

If you'll just use these pictures as a reference guide—you can soon put a stop to the attack of these pests. We know, from long experience, just how to handle them. We know which insecticide is best for each situation—and we have it on hand, ready for you.

The new insecticides

The scientists have made great progress, during the last few years, in their battle against the bugs. They have made gardening easier than ever; they have insured better results.

We keep a very close watch on the new developments. We assay them very carefully. Hence, we know exactly which new formulas have proved themselves—and what they can do.

This practical knowledge is at your service, whenever you need it!

**REMEMBER —
FOR INSECTICIDES
ALWAYS
SEE THE SEEDSMAN!**



PONDEROSA TOMATOES

Rutgers—Second early variety. Large thick stems, vigorous foliage. Fruits similar to Marglobe but flatter at stem end. Bright red, with thick walls. Red, firm flesh, low acidity. 72 days.

Stone Improved—Medium late. Deservedly popular with canners and market gardeners. Ripens evenly and is uniform. Fruits large, flattened, but deep. Smooth, attractive, scarlet-red, of fine flavor. 86 days.

Stokesdale—An extremely important new development. Smooth, 7-oz. fruit, brilliant color, exceedingly solid flesh and small seed cavities. Matures in the second-early group, a full week earlier than the Marglobe group. Usually ahead of Bonny Best, too—and 2 ounces heavier.

Small Fruited

Red and yellow varieties, shaped like miniature pears, plums, and cherries; very attractive for preserves.

TURNIP

For summer greens or roots, sow as early as radishes and lettuce. Then cut when plants are 1" high. Sow again in summer for fall and winter use. Turnips do best when most of their growth is made in autumn or early spring. Should be grown rapidly for best flavor and texture.

Golden Ball or Orange Jelly—Medium size, deep yellow with bronze-green top. Creamy yellow flesh of fine texture. 65 days.

Purple Top White Globe (fr)—All purpose variety. Large, sweet tops. Smooth, globe-shaped roots, purple-red above, white below. Sweet, tender, crisp, white flesh. 50 to 60 days.

Purple-Top Strap Leaf—Home and market garden variety. Deep purplish-red on top, white below. Flesh white and never stringy.

Foliage Turnip

Seven Top or Winter Greens—For greens or forage. Young shoots extremely tender. Roots tough, undesirable for food. 50 days.

Rutabaga or Swede Turnip

American Purpletop—Hardy and productive. Tender firm, light yellow, sweet flesh. 88 days.

Many gardeners like to govern their planting by the phases of the moon. For them, we show here all the necessary information generally shown by more voluminous

arrangements. As seedsmen, we cannot vouch for the effectiveness of this method, but we are glad to provide this complete and up-to-date chart for those who want it.

Signs of the Zodiac and Their Influence

♈ **ARIES**: Tends to dryness, barrenness. Fairly good for cultivating, spraying and weeding.

♉ **TAURUS**: Fairly productive. A good sign for planting root crops particularly potatoes and bulbous plants.

♊ **GEMINI**: Dry and barren. Not good for any kind of planting or transplanting. Kill noxious growths.

♋ **CANCER**: Moist, very fruitful, most productive of the Zodiac. Planting and transplanting should yield good crops. Irrigate, bud, graft, transplant.

♌ **LEO**: Most dry and barren sign. Use only to kill weeds, destroy roots, etc.

♍ **VIRGO**: Moist but barren. Not recommended for planting or transplanting; good for cultivating and destroying.

♎ **LIBRA**: Fairly fruitful. Seed for hay, corn, fodder, etc. Produces vigorous pulp growth, reasonable amount of grain. Good for flowers.

♏ **SCORPIO**: Next to Cancer in productiveness. Irrigate but do not dig potatoes.

♐ **SAGITTARIUS**: Generally considered barren but used by many for onions, seeding for hay, destroying weeds, etc.

♑ **CAPRICORN**: Earthly, fairly productive. Similar to Taurus but drier. Bulbous flowers, potatoes, tubers, root crops.

♒ **AQUARIUS**: Somewhat barren. Good only for cultivation and extermination of pests.

♓ **PISCES**: Similar to Cancer so use for same purposes. Very productive. Do not dig potatoes.

When to Plant

bage, Cauliflower, Celery, Corn, Cucumbers, Endive, Kohlrabi, Leeks, Lettuce, Spinach, Barley, Oats, Rye, Wheat.

♌ **2nd QUARTER, MOON INCREASING**—During 2nd Quarter of Moon plant the following: Beans, Egg Plant, Melons, Peas, Peppers, Pumpkins, Squash, Tomatoes, flowers, and cereals.

When possible, plant seed while the Moon is in the fruitful signs of Cancer, Scorpio or Pisces. The next

best signs are Taurus, Libra and Capricorn.

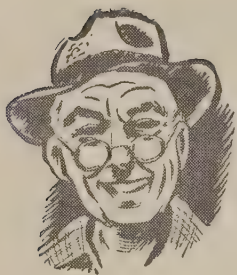
♋ **3rd QUARTER, MOON DECREASING**—During 3rd Quarter of Moon plant the following: Beets, Carrots, Chicory, Parsnips, Potatoes, Radishes, Rutabagas. Onions, Turnips, Tubers.

♊ **4th QUARTER, MOON DECREASING**—In 4th or Last Quarter of the Moon turn sod, pull weeds, and destroy noxious growths, especially when Moon is in barren signs, Gemini, Leo, Virgo or Aquarius.

1948 — Moon's Phases and Positions — 1948

JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE
2 ♌ 8:15a.	3 ♌ 4:31a.	1 ♌ 11:45a.	2 ♌ 5:20p.	2 ♌ 1:43p.	1 ♌ 9:53a.
4 ♌ 1:53p.	5 ♌ 3:31p.	3 ♌ 9:52p.	5 ♌ 5:54a.	5 ♌ 1:26a.	3 ♌ 7:44p.
6 ♌ 10:42p.	8 ♌ 4:00a.	6 ♌ 10:14a.	7 ♌ 5:29p.	7 ♌ 10:44a.	6 ♌ 2:02a.
9 ♌ 9:43a.	10 ♌ 4:37p.	8 ♌ 10:53p.	10 ♌ 2:56a.	9 ♌ 5:19p.	8 ♌ 5:26a.
11 ♌ 9:55p.	13 ♌ 4:36a.	11 ♌ 10:32a.	12 ♌ 10:17a.	11 ♌ 9:37p.	10 ♌ 7:11a.
14 ♌ 10:35a.	15 ♌ 3:07p.	13 ♌ 8:39p.	14 ♌ 3:43p.	14 ♌ 0:38a.	12 ♌ 8:49a.
16 ♌ 10:42p.	17 ♌ 10:53p.	16 ♌ 4:41a.	16 ♌ 7:16p.	16 ♌ 3:15a.	14 ♌ 11:35a.
19 ♌ 8:38a.	20 ♌ 3:04a.	18 ♌ 10:10a.	18 ♌ 9:31p.	18 ♌ 6:08a.	16 ♌ 4:03p.
21 ♌ 2:58p.	22 ♌ 4:03a.	20 ♌ 0:56p.	20 ♌ 11:17p.	20 ♌ 9:58a.	18 ♌ 10:31p.
23 ♌ 5:22p.	24 ♌ 3:23a.	22 ♌ 1:42p.	23 ♌ 1:53a.	22 ♌ 3:23p.	21 ♌ 6:53a.
25 ♌ 4:59p.	26 ♌ 3:09a.	24 ♌ 2:00p.	25 ♌ 6:36a.	24 ♌ 11:10p.	23 ♌ 5:15p.
27 ♌ 3:56p.	28 ♌ 5:30a.	26 ♌ 3:52p.	27 ♌ 2:23p.	27 ♌ 9:33a.	26 ♌ 5:24a.
29 ♌ 4:31p.		28 ♌ 8:48p.	30 ♌ 1:17a.	29 ♌ 9:46p.	28 ♌ 5:56p.
31 ♌ 8:30p.		31 ♌ 5:38a.			
Changes	Changes	Changes	Changes	Changes	Changes
♌ 3:513a.	♌ 1:6:31p.	♌ 2:10:35a.	♌ 1:4:25a.	♌ 8:8:30p.	♌ 7:6:55a.
♌ 11:1:44a.	♌ 9:9:02p.	♌ 10:3:15p.	♌ 9:7:16a.	♌ 15:6:55p.	♌ 13:11:40p.
♌ 19:5:32a.	♌ 17:7:55p.	♌ 18:6:27a.	♌ 16:1:42p.	♌ 22:6:37p.	♌ 21:6:54a.
♌ 26:1:11a.	♌ 24:11:16a.	♌ 24:9:10p.	♌ 23:7:28a.	♌ 30:4:43p.	♌ 29:9:23a.
JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
1 ♌ 4:39a.	2 ♌ 1:20a.	2 ♌ 0:21p.	1 ♌ 10:30p.	2 ♌ 0:11p.	2 ♌ 3:16a.
3 ♌ 11:48a.	4 ♌ 2:14a.	4 ♌ 11:36a.	3 ♌ 10:58p.	4 ♌ 5:39p.	4 ♌ 11:31a.
5 ♌ 3:06p.	6 ♌ 1:33a.	6 ♌ 0:34p.	6 ♌ 1:55a.	7 ♌ 2:41a.	6 ♌ 10:45p.
7 ♌ 3:54p.	8 ♌ 1:30a.	8 ♌ 4:51p.	8 ♌ 8:30a.	9 ♌ 2:33p.	9 ♌ 11:29a.
9 ♌ 4:04p.	10 ♌ 3:56a.	11 ♌ 0:56a.	10 ♌ 6:42p.	12 ♌ 3:12a.	11 ♌ 11:09p.
11 ♌ 5:31p.	12 ♌ 9:49a.	13 ♌ 11:58a.	13 ♌ 7:03a.	14 ♌ 2:24p.	14 ♌ 7:44a.
13 ♌ 9:28p.	14 ♌ 6:51p.	16 ♌ 0:27a.	15 ♌ 7:36p.	16 ♌ 11:02p.	16 ♌ 1:01p.
16 ♌ 4:11a.	17 ♌ 6:02a.	18 ♌ 1:01p.	18 ♌ 6:54a.	19 ♌ 5:11a.	18 ♌ 4:04p.
18 ♌ 1:13p.	19 ♌ 6:23p.	21 ♌ 0:45a.	20 ♌ 4:14p.	21 ♌ 9:32a.	20 ♌ 6:19p.
21 ♌ 0:03a.	22 ♌ 7:05a.	23 ♌ 10:40a.	22 ♌ 11:21p.	23 ♌ 0:48p.	22 ♌ 8:59p.
23 ♌ 0:12p.	24 ♌ 7:03p.	25 ♌ 5:45p.	25 ♌ 4:10a.	25 ♌ 3:33p.	25 ♌ 0:39a.
26 ♌ 0:57a.	27 ♌ 4:39a.	27 ♌ 9:35p.	27 ♌ 6:53a.	27 ♌ 6:19p.	27 ♌ 5:29a.
28 ♌ 0:33p.	29 ♌ 10:34a.	29 ♌ 10:41p.	29 ♌ 8:16a.	29 ♌ 9:52p.	29 ♌ 11:47a.
30 ♌ 9:01p.	31 ♌ 0:42p.		31 ♌ 9:32a.		31 ♌ 8:08p.
Changes	Changes	Changes	Changes	Changes	Changes
♌ 6:3:09p.	♌ 4:10:13p.	♌ 3:5:21a.	♌ 2:1:42p.	♌ 1:0:02a.	♌ 8:7:57a.
♌ 13:5:30a.	♌ 11:1:40p.	♌ 10:1:05a.	♌ 9:4:10p.	♌ 16:0:31p.	♌ 16:3:11a.
♌ 20:8:31p.	♌ 19:11:32a.	♌ 18:3:43a.	♌ 17:8:23p.	♌ 23:3:22p.	♌ 22:11:12p.
♌ 29:0:11a.	♌ 27:0:46p.	♌ 25:11:07p.	♌ 25:7:41a.	♌ 30:0:44p.	♌ 30:3:44a.

All Vegetable Seeds
10¢ PER PACKET
UNLESS OTHERWISE NOTED



The Old Gardener says— "D. D. T. can't do it all!"

Wonderful as they are, the new "miracle" pest killers are not a cure for all ills. The Old Gardener here offers some down-to-earth comments on this timely matter.

The new bug fighters are big news. Insecticides like the miracle-working D.D.T. have revolutionized gardening. But they bring new problems too, because they destroy one insect while favoring its neighbors. As a result, many of the friendly insects—the predators that ordinarily keep some insects in check—are killed, while the dangerous pests multiply faster than ever. That is why it is more important than ever before that you know what pest you are fighting.

A unique portrait series

To help you, we are presenting on page 22 the most complete and most accurate color illustrations of your garden enemies ever printed in any catalog. Know what you are fighting. If you can't tell what insect is hurting your garden, bring in a sample and we'll do everything possible to identify it and recommend the right insecticide to control it.

When in doubt, remember that a combination of pyrethrum and rotenone, or rotenone and phenothiazine will kill practically any insect it touches. For best effect, however, they must be hit directly. Too, remember that while D.D.T.

lasts for a long time on foliage and kills many insects, it does not kill red spider or aphids, two common pests in the garden. A mixture of D.D.T., pyrethrum and rotenone is practically a universal insecticide, but it cannot be used on the edible portions of vegetables.

When in doubt, ask us!

We suggest that you save our page of insect pictures for future reference. But don't wait until insects attack to fight them. In many cases, once the pest has invaded your garden, it's too late. Ask us about spraying for general garden sanitation—how to keep bugs from getting the upper hand.

A Program for Garden Sanitation

About 75% of the work and much of the damage caused by insects can be eliminated by a simple, regular program of sanitation. Preventive dusting or spraying is much easier than waging a losing battle against bugs when they appear. Usually, less than 30 minutes a week should be needed for a regular sanitation program for both flowers and vegetables.

Along with a regular program of insect control, plan on destroying weeds along the edges of your garden, the places where insects hide during the winter. If possible, control the weeds for a distance of at least 25 feet on all sides of the garden. Not only will this eliminate insect hiding places, but it will reduce the number of weed seeds that might otherwise blow onto your garden.

This program involves two new chemicals. Apply a 5% dust of D.D.T. to the grass and weeds about every three weeks, so that most insects that might otherwise move into the garden will be killed. So will mosquitoes, chiggers and harvest mites that can make gardening so unpleasant.

The regular use of 2,4-D will keep down all of the broadleaved weeds, without danger of poisoning animals, children or of damaging equipment with corrosive sprays. In using 2,4-D around flowers and vegetables, however, be extremely careful not to allow the spray to drift onto these, as most garden plants are as easy to kill with this material as the weeds.

Any spray that will kill grasses will also hurt the soil so that it can't be used for growing plants for several years. If this is not objectionable, use one of the non-selective weed killers—and clear the ground of all vegetation (as on driveways, tennis courts, etc.) Ask us for details.

Green Manuring— a way to save weeding

A big help in reducing the amount of weeding necessary is the use of a green manure mulch on any patch of soil not being used. Whenever you remove one crop from your garden plot and won't use it again for at least several weeks, sow that spot with winter rye. Winter rye is not to be confused with rye grass. The right cover crop to use is the regular cereal grain—winter rye. Plant about 5 lbs. to 1,000 square feet to produce a thick stand that will crowd out weeds.

This green mulch or cover crop will take up any unused fertilizers in the soil, and will store them in the leaves of the rye. Then the following spring when the rye is plowed under, this fertilizer returns to the soil and can be used by the succeeding crop. If the ground lays unused, most of this plant food will be lost down the drains. And because a heavy stand of rye will crowd out weeds, you should have a cleaner garden with less work the next year.

"LAZY MAN'S POTATO PATCH"

How to have your potatoes grow above ground

Years ago, "straw" potatoes used to command a premium on the market because they were superior in quality. But, because of this, many unscrupulous dealers began calling their wares "straw potatoes" and so the phrase lost all its meaning, and the method of growing was forgotten.

Now, it is being revived by home gardeners, particularly in sections where the summer is considered too warm for good potato yields. Under straw culture, these limitations do not hold, and potatoes can be successfully grown.

Prepare the soil as for regular vegetable crops. Instead of burying

the seed pieces several inches deep, lay them on the surface and press in slightly, covering with a bare half inch of soil. Instead of regular spacing, plant seed pieces over entire area 12"x12".

After planting, cover entire bed with a layer of straw 12" deep. That's all there is to planting—no further weeding or cultivating.

Dusting for blight should be done. When vines die down, remove straw and potatoes will be found growing on the surface of the soil. They will be bright and clean and can be picked up without digging. A real labor saving method of growing potatoes.

1878

ISBELL'S



SEEDS

1948

"AS THEY GROW

THEIR FAME GROWS"

JACKSON, MICHIGAN

Gardeners' Bulk Price List

ASPARAGUS

	1 oz.	¼ lb.	½ lb.
Paradise	.40	1.15	1.95
Mary Washington	.25	.60	1.00

BEANS

	¼ lb.	½ lb.	1 lb.
Pencil Pod Black Wax	.15	.25	.45
Improved Golden Wax	.15	.25	.45
Early Wonder Wax	.15	.25	.45
Round Pod Kidney Wax	.15	.25	.45
Unrivalled Wax	.15	.25	.45
Davis White Wax	.15	.25	.45
Sure Crop Wax	.15	.25	.45

BEANS, GREEN POD

	¼ lb.	½ lb.	1 lb.
Giant Stringless	.15	.25	.45
Stringless Green Pod	.15	.25	.45
Tendergreen	.15	.25	.45
Black Valentine Stringless	.15	.25	.45
Bountiful	.15	.25	.45
Stringless Refugee	.15	.25	.45
Full Measure	.15	.25	.45
Plentiful	.15	.25	.45

POLE BEANS

	¼ lb.	½ lb.	1 lb.
Kentucky Wonder	.15	.25	.45
Kentucky Wonder Wax	.15	.25	.45

BUSH LIMA BEANS

	¼ lb.	½ lb.	1 lb.
Burpee's Bush Lima	.20	.35	.60
Fordhook Bush Lima	.20	.35	.60
Henderson's Bush Lima	.20	.35	.60
Baby Potato Lima	.20	.35	.60
King of the Garden	.20	.35	.60

BEETS

	1 oz.	¼ lb.	1 lb.
Detroit Dark Red	.25	.60	1.70
Early Wonder	.25	.60	1.70
Crosby Egyptian	.25	.60	1.70

MANGELWURZEL

	1 oz.	¼ lb.	1 lb.
Mammoth Long Red	.20	.50	1.45
Giant Half Sugar	.20	.50	1.45

BROCCOLI

	1 oz.	¼ lb.	1 lb.
Italian Green Sprouting	.40	1.20	3.15

BRUSSEL SPROUTS

	1 oz.	¼ lb.	1 lb.
Long Island	.70	1.95	4.70

CABBAGE

	1 oz.	¼ lb.	1 lb.
Copenhagen Market	.40	1.15	3.25
Marion Market	.45	1.25	3.65
Golden Acre	.50	1.40	4.10
Charleston Wakefield	.50	1.40	4.10
Early Jersey Wakefield	.35	1.05	3.00
Glory of Enkhuizen	.35	1.05	3.00
Yellows Resistant Globe	.50	1.40	4.10
All Seasons Yellows Resistant	.45	1.25	3.65
Early Flat Dutch	.35	1.05	3.00
Premium Flat Dutch	.40	1.15	3.25
Danish Ballhead	.45	1.25	3.65
Wisconsin Hollander No. 8	.50	1.40	4.10
Isbell's Kraut King	.45	1.15	3.25
Hollander	.50	1.40	4.10
Drumhead Savoy	.45	1.25	3.65
Bugner Yellows Resistant	1.00	3.00	9.00

RED CABBAGE

	1 oz.	¼ lb.	1 lb.
Mammoth Red Rock	.50	1.40	4.10

CHINESE CABBAGE

	1 oz.	¼ lb.	1 lb.
Chihili	.25	.75	2.15

CARROT

	1 oz.	¼ lb.	1 lb.
Morses Bunching	.40	1.25	3.00
Nantes Coreless	.30	.85	2.50
Chantenay Red Cored	.30	.85	2.50
Improved Long Orange	.25	.75	2.25
Imperator	.25	.75	2.25
Danvers Half Long	.25	.60	2.00
Oxheart	.25	.60	2.00
Supreme Half Long	.30	.75	2.00

CAULIFLOWER

	½ oz.	1 oz.	¼ lb.
Super Snowball	1.60	3.00	9.25

CELERY

	½ oz.	1 oz.	¼ lb.
Fordhook	.45	.85	2.50
White Plume	.45	.85	2.50
Giant Pascal	.40	.75	2.25
Golden Self-Blanching	.45	.85	2.50
Golden Plume	.45	.85	2.50
Easy Blanching	.45	.85	2.50

CELERIAC

	½ oz.	1 oz.	¼ lb.
Smooth Prague	.40	.65	2.00

SWISS CHARD

	1 oz.	¼ lb.	1 lb.
Lucullus	.20	.60	1.60
Rhubarb Chard	.45	1.40	4.50

CHIVES

	1 oz.	¼ lb.	1 lb.
	1.00	3.25	

SWEET CORN—Hybrid Yellow

	¼ lb.	½ lb.	1 lb.
Golden Cross Bantam	.25	.35	.60
Marcross	.25	.35	.60
Tendergold	.25	.35	.60

SWEET CORN—White

	¼ lb.	½ lb.	1 lb.
Country Gentleman	.15	.25	.40
Stowell's Evergreen	.15	.25	.40
Early Evergreen	.15	.25	.40
Black Mexican	.15	.25	.40

SWEET CORN—Yellow

	¼ lb.	½ lb.	1 lb.
Golden Bantam	.15	.25	.40
Golden Evergreen	.15	.25	.40
Golden Sunshine	.15	.25	.40

POPCORN

	¼ lb.	½ lb.	1 lb.
Australian Hull-less	.15	.25	.40
South American Mushroom	.15	.25	.40

CUCUMBER

	1 oz.	¼ lb.	1 lb.
A. & C.	.30	.90	2.70
Boston, Chicago, National	.30	.90	2.70
Davis Perfect	.30	.90	2.70
Early Fortune	.30	.90	2.70
Improved White Spine	.30	.90	2.70
Longfellow	.30	.90	2.70
Straight Eight	.30	.90	2.70
Long Green	.30	.90	2.70
West India Gherkin	.30	.90	2.70
Isbell's King of Picklers	.30	.90	2.70

DILL	1 oz.	¼ lb.	1 lb.
Long Island Mammoth	.20	.50	1.50

EGG PLANT	1 oz.	¼ lb.	1 lb.
Black Beauty	.80	2.35	6.75
New York Improved	.80	2.35	6.75

ENDIVE	1 oz.	¼ lb.	1 lb.
Batavian Broad Leaf	.25	.75	2.00
Full Heart Batavian	.25	.75	2.00
Green Curled Rufec	.25	.75	2.00
Large Green Curled	.25	.75	2.00

KALE	1 oz.	¼ lb.	1 lb.
Dwarf Green Curled	.35	.90	3.00

KOHLRABI	1 oz.	¼ lb.	1 lb.
White Vienna	.40	1.25	3.50
Purple Vienna	.40	1.25	3.50

LETTUCE	1 oz.	¼ lb.	1 lb.
Big Boston	.25	.75	2.50
Grand Rapids	.25	.75	2.50
Improved Hanson	.25	.75	2.50
Iceberg	.25	.75	3.00
Imperial No. 44	.40	1.30	4.50
Imperial No. 847	.50	1.50	4.50
New York Wonderful	.35	1.00	3.00
New York Wonderful No. 515	.35	1.00	3.00
Prizehead	.25	.75	2.50
Black Seeded Simpson	.25	.75	2.50
Early Curled Simpson	.25	.75	2.50
Great Lakes	.50	1.50	5.50

LEEK	1 oz.	¼ lb.	1 lb.
American Flag	.60	2.00	5.50

MUSTARD	1 oz.	¼ lb.	1 lb.
Southern Giant Curled	.20	.50	1.50
Tendergreen	.20	.50	1.50

MUSKMELON	1 oz.	¼ lb.	1 lb.
Bender's Surprise	.35	1.00	3.00
Extra Early Hackensack	.35	1.00	3.00
Hearts of Gold	.35	1.00	3.00
Hale's Best	.35	1.00	3.00
Honey or Sugar Rock	.35	1.00	3.00
Miller's Cream or Osage	.35	1.00	3.00
Pride of Wisconsin	.35	1.00	3.00
Rocky Ford	.35	1.00	3.00

OKRA	1 oz.	¼ lb.	1 lb.
Perkins' Mammoth	.15	.35	.90
Dwarf Long Green Pod	.15	.35	.90
White Velvet	.15	.35	.90

ONION	1 oz.	¼ lb.	1 lb.
Brigham Yellow Globe	.45	1.35	4.00
Early Yellow Globe	.50	1.40	4.30
Ebenezer	.45	1.30	3.90
Southport White	.60	1.80	5.10
Southport Yellow	.45	1.35	3.90
White Portugal	.60	1.80	5.10
Yellow Globe Danvers	.45	1.35	3.90
Evergreen White Bunching	.70	2.00	5.50
White Sweet Spanish	.70	2.00	5.50

PARSLEY	1 oz.	¼ lb.	1 lb.
Hamburg Rooted	.25	.55	1.60
Extra Triple Curled	.25	.55	1.60

PARSNIP	1 oz.	¼ lb.	1 lb.
Hollow Crown	.25	.50	1.50
Guernsey	.25	.50	1.50

PEAS	¼ lb.	½ lb.	1 lb.
Alaska Wilt Resistant	.15	.25	.40
Alderman	.15	.25	.45
American Wonder	.15	.25	.45
Dwarf Telephone	.15	.25	.45
Tall Telephone	.15	.25	.45
Bliss Everbearing	.15	.25	.45
Gradus Improved	.15	.25	.45
Hundredfold	.15	.25	.45
Laxtonian	.15	.25	.45
Little Gem	.15	.25	.45
Little Marvel	.15	.25	.45
Nett's Excelsior	.15	.25	.45
Premium Gem	.15	.25	.45
Stratagem	.15	.25	.45
Thomas Laxton	.15	.25	.45
Laxton's Progress	.15	.25	.45

PEPPERS	1 oz.	¼ lb.	1 lb.
California Wonder	.70	2.25	6.75
Harris Early Giant	.90	2.65	7.80
Hungarian Yellow	.70	2.25	6.75
Long Red Cayenne	.70	2.25	6.75
Pimiento	.70	2.25	6.75
Sweet Bell, Bullnose	.70	2.25	6.75
World Beater	.70	2.25	6.75
Oakview Wonder	.90	2.65	7.85

PUMPKIN	1 oz.	¼ lb.	1 lb.
Connecticut Field	.25	.50	1.40
Sweet or Sugar Pie	.25	.50	1.40

RADISH	1 oz.	¼ lb.	1 lb.
Early Bird	.25	.70	1.90
Early Scarlet Globe Short Top	.20	.40	1.00
Crimson Giant	.20	.50	1.25
Sparkler	.20	.50	1.25
Scarlet Turnip	.20	.50	1.25
White Icicle	.20	.50	1.25
French Breakfast	.20	.50	1.25
Long Black Spanish	.20	.50	1.25
Chinese White Winter	.20	.50	1.25
Chinese Rose Winter	.20	.50	1.25

RUTABAGA	1 oz.	¼ lb.	1 lb.
American Purple Top	.20	.50	1.50
Golden Neckless	.15	.35	1.00

SALSIFY—Mammoth	1 oz.	¼ lb.	1 lb.
Sandwich Island	.55	1.65	4.75

SPINACH	1 oz.	¼ lb.	1 lb.
Blight Resistant Savoy	.20	.60	1.90
Bloomsdale Long Standing	.20	.60	1.90
King of Denmark	.20	.60	1.90
Improved Thick Leaf	.20	.60	1.90
New Zealand	.35	.85	2.50

SQUASH	1 oz.	¼ lb.	1 lb.
Blue Hubbard	.35	.90	3.00
Cocozelle	.25	.60	2.80
White Bush Scallop	.30	.90	2.25
Summer Straightneck	.30	.90	2.70
Golden Delicious	.35	.90	3.00
Green Delicious	.35	.90	3.00
Summer Crookneck	.25	.75	2.70
Table Queen or Acorn	.35	.90	3.00
Warted Hubbard	.35	.90	3.00
Banana	.35	.75	2.90

TOMATO	1 oz.	¼ lb.	1 lb.
Beef Steak	1.00	3.00	10.00
Bonny Best	.75	2.40	7.00
Earliana	.80	2.40	8.00
Golden Jubilee	.80	3.50	12.00
John Baer	.70	2.40	7.00
Marglobe	.70	2.00	5.00
Oxhart	1.35	3.50	12.00
Ponderosa	1.00	3.00	10.00
Pritchard	.70	1.80	5.00
Rutgers	.70	1.80	5.00
Stone	.70	1.80	5.00
Stokesdale	.70	1.80	5.00

TURNIP	1 oz.	¼ lb.	1 lb.
Purple Top White	.15	.45	1.00
Purple Top Milan	.15	.45	1.00
Purple Top Strap Leaf	.15	.45	1.00
Yellow Globe	.20	.50	1.00
Golden Ball	.20	.50	1.00
Amber Globe	.20	.50	1.00
Cowhorn	.20	.45	1.00
White Egg	.20	.45	1.00
Snow Ball	.20	.50	1.00

WATERMELON	1 oz.	¼ lb.	1 lb.
Citron, Red Seeded	.30	.75	1.75
Harris Early	.30	.75	2.00
Dixie Queen	.30	1.00	3.00
Florida Giant	.30	1.00	3.00
Irish Grey	.30	.85	2.00
Kleckley Sweet or Wonder	.30	.75	2.00
Peerless	.30	.65	2.00
Stone Mountain	.30	.75	2.00
Tom Watson	.30	.75	2.00
Winter Melon	.30	1.00	3.00

ISBELL'S DEPENDABLE ALFALFA SEED

Alfalfa, the most essential hay crop, is of such vital importance that a failure is little short of a major disaster on most farms. By planting seed of known origin and proven adaptability, a good seeding is assured, weather and other conditions being normal. Naturally, Michigan Grown seed is desirable, but as there was only a small quantity produced last season, seed from other states must be relied upon for most of the acreage this year. We offer premium quality seed from the best producing districts.

KANSAS ALFALFA

Verified Origin Seed

Kansas Alfalfa seed has been used in Michigan for over 40 years and is noted for bumper hay crops. Because of good yields last season Kansas seed is very reasonably priced. The seed is plump, bright colored, and of high purity and germination. Use Kansas seed for hay and save money.

In the central and western part of Kansas where our seed was grown, low winter temperatures prevail, and there is less snow coverage than in many other areas. Because Michigan is surrounded by lakes, our winter weather is moderated and we usually do not experience as severe cold as the Kansas region from which we have selected this seed. We recommend this particular seed as an excellent value, and satisfactory for Michigan conditions.

MICHIGAN ALFALFA

Our Michigan Alfalfa seed is selected fine quality seed grown in Northern Michigan. After the seed is thoroughly cleaned over the most modern equipment, it is Laboratory Tested for both purity and germination. If you want alfalfa best adapted to your farm, use our Michigan Alfalfa seed. Our supply is very limited so order your seed as soon as possible.



DAKOTA ALFALFA

(Winter Hardy)

Alfalfa in the Dakota areas withstands unusually severe conditions, both in winter and summer, in order to survive. Extremely low temperatures in winter, with alternate freezing and thawing, biting sharp winds, snowdrifts and bare ground, all combine to make it tough for any but the hardest strains to survive and produce seed. Also the summers are dry, often over long periods, which tests its ability to withstand severe droughts. Frosts late in the spring and early in the fall are further hazards it must withstand.

Naturally alfalfa seed produced under such severe conditions is especially suitable for Michigan and nearby states where growing conditions are somewhat similar but less severe. This is a splendid lot of high quality, bright in color and plump of berry, with excellent purity and high germination. Stocks are not too large so be wise and get your Dakota Alfalfa seed soon.

ISBELL'S RED CLOVER

Michigan Red Clover Seed has always been classed as the highest quality produced anywhere. It is always in demand, but this season there is not enough seed to supply all the growers who want this. The clover seed crop in Michigan was smaller than usual last season and way below normal. This was true of both Medium, Red, or June, and Mammoth Red Clover. We strongly urge everyone who intends to sow Red Clover Seed to order this as soon as possible, the sooner the better.

BROME GRASS

(Bromus Inermis)

Brome Grass is a quick starting, hardy, long-lived northern grass that has been known for many years, but its real value has only recently become well known and appreciated. Brome withstands drought better than other grasses, and while it makes good hay, its greatest value is its use for pasture, either alone or with Alfalfa. It makes ideal pasture during mid-summer when most needed and also produces well on light soils.

An ideal pasture combination is secured by sowing 10 to 12 pounds of Alfalfa seed and 8-10 pounds of Brome Grass seed per acre in the spring, either alone or in oats, barley or wheat. This mixture gives best results when not pastured until a good top growth is attained. Cattle eat the Brome Grass in preference to the Alfalfa, giving the Alfalfa a chance to become well established. Dairymen tell us that by growing Brome Grass with Alfalfa, bloating in cattle is completely eliminated. Brome Grass seed should be bought early, as there is a great demand for it. Our seed is No. 1 Canadian Grown and of the best quality.



UTAH ALFALFA

Hardy, High Altitude Grown

This seed is from the high altitude Delta section of Utah, where winter temperatures are frequently 30 degrees below zero. For high resistance to winter kill we suggest using this. Quantities are limited so get yours early.

ARGENTINE ALFALFA

(Cool Climate)

While the use of Argentine Alfalfa seed is still considered experimental in Michigan, Pennsylvania reports show satisfactory resistance to winter killing in that state. Our Argentine seed is from the southern mountainous regions where the winter climate is comparable to that of southern Michigan.

This seed is called 'COOL CLIMATE' seed to identify it. The price of this seed is so reasonable this season (less than 1/2 the price of red clover when this was written) that we suggest you try a small plot of Argentine Alfalfa this year. Why not find out if you can save up to one-half on seeding cost by using this?

WHITE BLOSSOM SWEET CLOVER

This is the common biennial sweet clover which makes a rank growth that is especially valuable for plowing under. It supplies a green manure crop, loosens the soil, adds humus and nitrogen and leaves a splendid mulch. Because of its large root growth it adds more nitrogen to the soil than Alfalfa or Red Clover.

HUBAM ANNUAL SWEET CLOVER

Hubam is a white blossom sweet clover which makes its entire growth and produces seed in one season and will not live over winter. It grows about three and one-half feet high. It makes good hay or pasture and splendid bee feed. When seeded in the spring with oats or barley, Hubam will produce a good crop of hay or pasture after the grain is cut. The seed may also be sown alone and the usual rate of seeding is twenty pounds per acre.

YELLOW BLOSSOM SWEET CLOVER

Yellow Blossom Sweet Clover does not grow as tall as White Blossom, is more spreading and has much finer stems. Also it is more palatable to livestock, as the stems are not as bitter tasting. For this reason it is better adapted to use for pasture and hay. As its blossoms very profusely, it also provides splendid bee feed. It should be cut for hay when not over three feet tall. At this stage it will make hay equal in quality to Alfalfa.

ARCO ENSILAGE CORN

Arco Ensilage Corn is an open pollinated cross between a tall growing, early yellow dent variety and a sweet corn which produces an ideal corn for silage use. Arco is noted for its large leafy stalks and long ears. It normally matures in 110 days. The stalks grow 8 to 10 feet high and are covered with broad, dark green leaves from just above the ground to the tassel.

The ears are 12 to 14 inches long and have wide shallow yellow kernels. Because of its thrifty, leafy growth, Arco produces a heavy tonnage of splendid silage. It is early enough for safety in most corn growing sections of Michigan. When green, the stalks have a sweeter taste than ordinary corn which makes Arco highly palatable to dairy cows. Why not try a bushel or more of ARCO this year?

A WORD ABOUT PRICES

Farm seeds are sold on a day to day market like grains and because of fluctuating markets it is difficult to issue a printed list that means very much. For this reason, we ask that you drop in at either of our two stores, call us on the phone (the numbers are 2-8275 and 5723) or mail us a postcard and tell us how much and what you need. We will quote you the best possible price on our quality seeds.

HEAVY YIELDING SEED OATS

CERTIFIED CLINTON OATS

Because Clinton Oats have unusual advantages which may be reduced or lost entirely through cross-breeding only CERTIFIED CLINTON SEED should be used at this time.

CERTIFIED CLINTON oats are DISEASE RESISTANT to the new oat disease *Helminthosporium*, in addition to being resistant to most stem and crown rusts, to most smuts, and to halo blight. Because of this advantage CERTIFIED CLINTON oats have yielded as much as 28 Bushels per acre more than usual varieties. The extra bushels you get with CERTIFIED CLINTONS usually more than pays for the seed.

And you can cross off losses from lodging too! CERTIFIED CLINTONS are ideal for combine harvesting because their straw is stronger and they stand up even when dead ripe.

Their thin hulled, plump grain with higher test weights bring top dollar on the market or give maximum feeding value, if farm used. They ripen a few days later than Marion or Vicland. Their height is about midway between Marion and Vicland and tends to be somewhat uneven.

Be sure that you get these remarkable advantages and that you get what you pay for by ordering ISBELL'S CERTIFIED CLINTON Seed Oats today.

NEW EATON OATS (Early Maturing)

An outstanding new oat developed at the Michigan State Experiment Station. This is a white oat, having a thin hull and is produced on very stiff straw of medium height. It is HIGHLY RESISTANT to smut and rust. Fields of this variety in the "Thumb" district of Michigan have out-yielded all other Michigan varieties for the past two years.

REED CANARY GRASS The Wonder Grass for Wet Soils

Reed Canary Grass thrives on soils too wet for other crops or grasses, yields enormous crops of hay and makes splendid pasture. It is a very leafy, hardy, permanent grass that will last until broken up. For a seed bed the soil should be plowed whenever dry enough. The seed is sown broadcast and covered lightly by harrowing in. 5 to 6 pounds of seed per acre sown in the fall, early spring or summer.

When sown in the fall, the seed will not germinate until spring. Even if covered with water for a considerable time, the seed is not injured but will start when the water goes down. Annual flooding will not injure the grass. The second year it may be pastured all season or cut for hay as soon as headed out. One acre will support 3 or 4 cows or yield up to ten tons of hay. Two cuttings, and sometimes three may be made in one season. The hay is well liked by all kinds of stock.



IT PAYS TO PLANT ISBELL'S FARM SEEDS

COMMON LAWN WEEDS



So that you may more easily know them by name, here are the pests that cause most of your lawn troubles. For easy ways to combat them, refer to the Weed Killer section on a later page.

Double digging

The gardener who takes pride in doing a first class job should consider trenching or double digging his soil in the way the old-time European gardeners did. To double dig, remove a trench of soil just the width and the depth of a spade, and wheel this soil to the end of the garden where you plan to finish. Next, add a layer four or five inches deep of compost or manure to the bottom of the trench and dig it in. Then dig the soil from the next row and throw it on top of the soil you have just dug over. Repeat this process across the entire garden and you should have a loose, well-drained soil with a rich sub-soil. While this sounds unnecessarily complicated, actually it is quite simple and is worth the effort it costs. It is particularly valuable for root crops, and where heavy clay soils need to be broken up.

To lime or not to lime

Liming will help break up heavy clay and will sweeten acid soil. But don't use lime unless it is needed, since too much lime destroys humus. Use only when needed. We can supply a simple test kit that shows if lime is needed, and if so, how much. Litmus paper is not enough: it only shows a plus or minus reading.

Composting

No matter how much you may spend on fertilizers, it will pay you to save your garden wastes to make compost. The compost heap is a "must" for the permanent garden because it helps to return to the soil what plants remove from it.

Select a spot that isn't too conspicuous and spread out your garden wastes over this area to a depth of six inches. Use weeds, old vegetable plants, trimmings from shrubbery, tops of bulbs, lawn clippings and the trimmings from lawn edging.

Between each six inch layer sprinkle a little lime and a liberal amount of a good general mixed fertilizer.

Excellent bacterial and chemical preparations are also valuable to hasten the process. Composting is a bacterial-organic process, and if the bacteria are to break down organic matter properly, they must be fed. That's the reason for the fertilizer, since bacteria are actually miniature plants that require this type of feeding.

Next, cover the lime and fertilizer with three or four inches of good garden soil. Keep repeating this layer-cake process—vegetable wastes, lime and fertilizer and soil, until the pile is two feet high. Wet down if rain doesn't fall, but don't saturate so as to drive out all air.

Within four to six months the whole mass should be broken down into a man-made "manure" that will go a long way towards making yours a perfect garden. Use this liberally over the entire garden area in spring, or as a mulch between the plants.

You don't need to waste the area given over to a compost heap because all the vine crops—melons, cucumbers and squash—grow to perfection on the rich food they find in the compost. Plant several seeds in shallow depressions in the top of the heap.

A sure way to defeat the rabbit pest

To shut out pests like rabbits, gophers and pheasants, a good fence will pay in the permanent garden where it would have been too costly for a temporary plot. An attractive fence can be made by stretching two-foot high close mesh and planting hedge shrubs on both sides. The wire will turn all pests that walk, and flying pheasants rarely fly over this type of hedge if it is closely planted. If a wire fence must be used because of space limitations, plan on covering it with some woody vine. Do not grow tender vines like sweet peas on a wire fence because the hot sun will heat up the wire enough to stunt the growth of pea vine tendrils.

Cover crops for the vegetable garden

Save and improve your soil and plant food supply by growing cover crops. After a row of vegetables has been harvested (if you aren't planting a succession crop in this spot) sow some quick-growing plant that will take up any excess fertilizers and store them in its tissues. Plow under that plant just before the next crop goes in, and decay will release that plant food just in time to do the most good. Also, the rotting vegetable matter produces humus, without which good crops cannot be grown.

Ask us for advice on cover crops for the garden.

Garden windbreaks

Many gardeners who have experienced failure with their summer plantings should consider planting a windbreak to slow down the force of the hot, dry winds that suck moisture from the soil and burn up tender seedlings. A summer windbreak should be located to cut off the prevailing summer breezes, usually to the south or southwest of the garden. Because garden plots are small and because garden plants are low-growing, a hedge five to six feet tall should be enough. This will not cut off breezes from the house. A hedge of privet or similar hedging should be adequate.

BULBS and TUBERS

GLADIOLUS

Bagdad—Smoky old rose, deeper at edge of throat, lighter in throat. 6 to 8 immense blooms open at one time.

Beacon—Clear bright scarlet, with large creamy throat blotch. 8 to 10 medium size florets, moderately ruffled.

Bit o' Heaven—Very nice orange with yellow throat. Opens 9 to 12 medium sized blooms on tall, straight spike.

Blue Beauty—Light blue, edges of petals lined with violet-blue. Throat somewhat lighter on upper petals, darker on lower.

Corona—Creamy white with halo of rose stippling on edge of petals. Opens 6 large rather loosely attached blooms on a head of about 19 buds.

Dream o' Beauty—Large rose red. A very popular shade. Tall strong grower. Often a double row of flowers.

Elizabeth the Queen—Clear mauve-ruffled flowers with dark lines in the throat. Large, fine form and opens 7 to 8 blooms at a time.

Gold Dust—New deep yellow, early. Medium sized blooms on tall spikes.

Golden Dream—Clear deep yellow. Midseason. Very tall spike with many flowers open at one time. Distinctive.

King Arthur—Immense ruffled rosy lavender of a distinct form and color. 4 or 5 blooms at a time.

King Lear—Clear deep reddish purple with silver line on edge of petals. Extremely large, heavily ruffled. Early.

Margaret Beaton—Huge snowy white florets with a very small vermilion-pink blotch deep in throat.

New Europe—Vivid garnet red with small purple stripe in throat. Enormous florets, 10 open at one time.

Phyllis McQuiston—Large deep glowing shrimp pink shading a little lighter in throat; 5 or more open on long spike.

Picardy—Soft shrimp pink without flecking. Blotch of flesh pink shading to shrimp pink at edges. Soft inconspicuous feathering of rose. Very large.

Red Lightning—Bright pleasing red with cream blotch in the throat.

Rewi Fallu—Deep blood-red very large blooms on tall straight spike. Early.

Rosa Van Lima—Light rose with a few lines in throat. Up to 8 or more large blooms open on tall strong spike.

Shirley Temple—Lovely cream with dark throat. Immense ruffled blossoms on long strong spike. Midseason.

Snow Princess—New fine white of good size and form. Many open blooms, perfectly placed. Stems never crook.

Spotlight—New brilliant red, lightly ruffled blooms, flat and wide open. Consistent performer and heat resistant.

Sweet Alibi—Deep geranium-pink. Magnificent large wide, ruffled florets on tall straight, strong spike.

Vagabond Prince—An unusual iridescent garnet brown color, lighter in upper throat and with small blotch of glowing flame scarlet on lip petal.

DAHLIAS

Key to Types

ID — Informal Decorative

FD — Formal Decorative

SC — Semi-Cactus

California Idol, ID—Clear lemon yellow. Deep flowers with high full centers. Strong bush, profuse bloomer.

Dixie's Wine Dot, ID—A delightful variegated Dahlia. White wavy petals, flecked and dotted rosy magenta.

Darcy Sainsbury, FD—Large pure white. Good stems that hold flowers facing. Withstands heat.

Evelyn Chandler, FD—Golden apricot. The large blooms are way above bush on very stiff stems.

Jean Trimbee, SC—Beautiful Petunia purple. Massive yet artistic with long revolute petals that curl and twist.

Mrs. Geo. Le Boutellier, FD—One of the largest bright reds, but blooms are a little heavy for the stems.

Monarch of the East, FD—Extra large candium yellow blooms with coral red shading on reverse. Come partly on top of cane like stems. Robust.

Rose Glory, FD—Large deep old rose on good stems. Fine keeper.

Town Topic, FD—Magenta purple with some blooms tipped white. Tall bush with 9-in blooms on stiff stems.

Miniature Dahlias—Lovely 3- to 4-in. blossoms, just like the large ones in form and shape. All have good stems. A wide range of colors. Try them!

Pompon Dahlias—Charming "button" dahlias that require little care. Gorgeous cut flowers. In mauve, pinks, red, white, bronze, yellow.

Short supplies of many Dahlia varieties this year may make it impossible for us to keep all listed varieties in stock. We will, however, have representative assortments of the best and most popular varieties available.

CANNAS

King Humbert—(Orchid-flowering). Orange-scarlet with bright red markings; deep bronze foliage. 4 feet.

Yellow King Humbert—Beautiful yellow with red spots. 4 feet.

President—Immense bright red in large clusters. Green foliage. 4 feet.

Hungaria—Large dainty rose-pink, frequently edged cream. 4 feet.

Wintzer's Colossal—Largest flowering. Vivid, blazing scarlet. Green foliage.

CALADIUM

Fancy-Leaved—Rich ornamental leaves, marked, veined and striped with white, pink and dark red.

Elephant's Ear—One of the largest ornamental plants for beds and borders. Huge green leaves give unusual effect.

TUBEROSES

One of the most fragrant of all flowers. Tall spikes of white blooms.

No garden is complete without GLADS



PLANT HIGH-CROWNED CORMS

Vigorous young bulbs are high-crowned like the picture at the upper left. Old, flat corms, like the lower picture, are not as good. When treating bulbs for pest or disease control, peel them as shown at upper right.



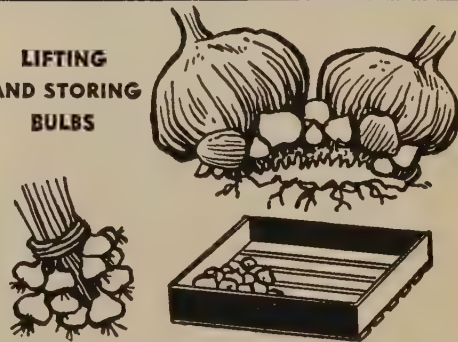
Plant your glads 4 to 6 inches deep. Avoid air pockets under the bulbs. It's best to have the bulb rest on sand and humus, at the bottom of your trench or travel-dug hole, with 4 inches of soil above top of bulb.



PREPARING THE SOIL

Work some sand, cinders, or leaf mould into lower soil, to get good drainage. Gladioli grow better and bigger when properly drained.

LIFTING AND STORING BULBS



Lift your glad corms about when tips of leaves turn brown. Do not remove stalks while leaves are still partly green. Store in bunches in open-slatted trays, and in a cool place. For over-winter storage cover bulbs with dry or nearly dry peat moss or sand. Avoid over-heating.



HOW? WHEN? WHERE? WHY?

For better blooms from bulbs

GLADIOLUS

Perhaps the most useful of all summer-flowering bulbs. Excellent to fill in places where perennials have died, or where annuals have failed. When used in this way, need no care other than that given the other garden flowers. Do not use extra fertilizer; too much food promotes production of bulbils or offsets at the expense of good bloom and of a sound center bulb.

Gladiolus bulbs can be planted at any time from earliest spring until July first (if sound bulbs are on hand that late). Before planting, treat bulbs for thrips (ask for information). In light soil, plant 5" to 6" deep. This will help support the flower spike which might otherwise fall over. In heavy soil, 4" deep is correct. If planted too shallow, more bulbils will be produced, but not as good flowers. Space 6" apart in rows 24" apart, though for smaller, older sorts, 4" may be enough room to allow.

Regular spraying to control thrips is essential wherever this insect pest has been seen. If your flowers failed to develop properly last year, and if the leaves had greyish tan patches on them, this means you had thrips, and will have them again unless you treat. D.D.T. has proved a perfect control for this pest.

DAHLIAS

Perhaps our most spectacular fall flower, the Dahlia should not be planted too early, as the flowers will not do well in warm weather. Do not, however, keep tubers later than June 1st, since by that time they usually start shriveling and may be injured if kept later. Dahlias need plenty of potash and phosphorus. If you apply the 25 to 30 lbs. of mixed fertilizers recommended for general use before planting, then additional feeding of potash and phosphorus will still be needed to produce firm tubers that will keep over winter, healthier plants and better bloom.

Leaf hoppers which carry disease and which also injure the plant by sucking juice from the leaves and stems are easily controlled by regular dusting or spraying with D.D.T. Mulching with straw, excelsior or some other airy, light material will help keep the soil moist and cool. Don't use leaves or grass clippings that mat down and pack—they hold in too much moisture.

FANCY LEAVED CALADIUMS

These spectacular foliage plants are particularly valuable because they do well in shade. Start them in a mixture of half sand and half leaf mould at a temperature of over 70°. When the roots are well-developed and the shoot is beginning to show, pot up in rich soil. Set out in the garden when weather is warm and settled. Ele-

phant ears can be planted directly in soil out of doors, but the weather must be warm and settled, otherwise they will rot.

TUBEROSE

This warm-weather bulb should be planted in rich soil, with 2" of soil over the tip after the weather is warm and settled. Do not try to save the bulbs: these must be grown by a specialist if they are to bloom well. Buy new bulbs each year.

CANNAS

While cannas will tolerate cold soil, they usually do not start growing until hot weather comes. Plant when the apple blossoms appear, in rich soil. If planted in round beds, you will need 37 plants for a 10 foot bed (18 plants on the outside, 12 in the second row, six for the third row and one in the center). A 7 foot bed will use 19 plants, with 12 plants on the outside row, six for the middle row and one plant in the center.

LILIES

Even the swamp lilies will not tolerate wet feet; all must have perfect drainage. Yet they like a moist, cool soil. This means that liberal quantities of old well-decayed compost is almost essential for lilies. They will not tolerate lime; your soil should have a pH of 6.5 or below if you want to grow good lilies.

The finest FLOWER SEEDS in the world

AGERATUM (a)—Culture I.

Blue Cap—New, dwarf, only 6" high. Deep blue. Pkt. 15c.

Blue Perfection—Deep amethyst-blue. Ht. 9".

Midget Blue—1940 All-America. Azure blue. Ht. 2-3". Pkt. 25c.

ALYSSUM (a)—Culture II; (hp) Culture VI.

Carpet of Snow (a)—White flowers, spreading plants, Ht. 3".

Lilac Queen (a)—Lavender-lilac flowers. Plant 6" high.

Violet Queen (a)—Deep violet, sweet scented. Pkt. 15c.

Saxatile Compactum (Gold Dust (hp))—Golden-yellow. Pkt. 15c.

ANCHUSA, Blue Bird (a)—Culture I. Sprays of Indigo-blue flowers; Plant 20-24" high.

ANTIRRHINUM (Snapdragon) (a)—Culture I.

Large Flowered, Half-Dwarf—Heavy spikes. Mixed colors. Pkt. 15c.

Tall Giant—Spikes 2 to 3 ft., upper part thickly studded with immense blooms. All colors. Pkt. 15c.

Super-Majestic, Rust-Resistant—Large, broad individual florets, 10 to 20 spikes in bloom at once. All colors. Pkt. 20c.

Tetra—New! Largest flowered of all Snaps. Many distinctly ruffled. Rust-resistant. Many colors. Pkt. 20c.

AQUILEGIA (Columbine), Mrs. Scott Elliott's Long-Spurred (hp) (s)—Culture VI. Extremely large flowers, wide range of pastel colors. Pkt. 25c.

ARABIS (Rock Cress) (hp)—Culture VI. Showy dwarf, spreading plants, Ht. 8-10". Cut flowers last long time. Pkt. 15c.

ARCTOTIS (Blue-eyed African Daisy), Grandis (a)—Culture I or II. Pure white blooms, bluish center, gold band. Pkt. 15c.

ARMERIA (Thrift) (hp) — Culture VI. Rock-garden plant, evergreen leaves; rose and white flowerheads. Pkt. 15c.

ASTER (a)—Culture I.

American Branching—3½ to 4-in. double blooms. All colors.

California Giant Improved—5-in. double flowers, with long curled petals, stems 1½ to 2 ft. Branching. Pkt. 15c.

Giant Crego, Wilt-Resistant—Flowers 4 to 5-in. double; petals curled and twisted. Long stems. Branching. Pkt. 15c.

Navy Blue, Giant Crego — All-America. Large 4-in. double flowers, deep purple blue. Extra early. Pkt. 15c.

El Monte—Largest of all asters. Deep crimson blooms with daintily interlaced plume-like petals. Quite early. Pkt. 20c.

Los Angeles—Super-giant flowers; pure shell pink; curling, interlaced petals, giving feathery effect. Pkt. 20c.

Pompon Asters—Small round pompons with short, broad outer petals; center petals quilled. Ht. 15". All colors. Pkt. 20c.

Queen of the Market, Wilt-Resistant — First to bloom. Round, double, 3-in. flowers; long stems. All colors. Pkt. 15c.

Sunshine—Huge flowers, single row of outer petals with contrasting yellow, quill-like center. All colors. Pkt. 20c.



ANTIRRHINUM
Snapdragon



ANCHUSA
Bluebird

KEY TO SYMBOLS

The symbols after the name of each flower give you the following information:

(a)—Annual

(hp)—Hardy Perennial

(b)—Biennial

(s)—Suited to semi-shade

Information on how to grow is indicated by the Culture Number. Refer to Page 33 for complete data.

The initials "A-A" indicate winners of the All-America Awards.

AUBRIETIA (False or Purple Rock-Cress) (hp)

(s) — Culture VI. Dwarf creeping plant; flowers form cataract of color. Silver green foliage. Pkt. 15c.

BABY BLUE EYES—See Nemophila.

BABY'S BREATH—See Gypsophila.

BACHELOR'S BUTTONS (Centaurea) (a) (s)

—Culture II or IV.

Blue Boy—Rich deep blue, fully double flowers. Pkt. 15c.

Jubilee Gem—All-America. Dwarf plants, completely covered with large, double, deep blue flowers. Pkt. 15c.

Pinkie—Double flowers, lovely deep pink. Pkt. 15c.

Red Boy—Bright vivid crimson, fully double. Pkt. 15c.

Snowman—Best white variety. Fully double. Pkt. 15c.

Mixed—Pkt. 15c.

BLANKET FLOWER—See Gaillardia.

BALLOON VINE (Love-in-a-Puff) (a) — Culture III.

Rapid growing vine. White 4 petaled Flowers, succeeded by small balloon-like seed-pods.

BALSAM (Lady-Slipper) (a) (s) — Culture II.

Double, Camelia-like flowers; symmetrical bushy plants.

BELLIS PERENNIS—See Daisy, English.

BLUE LACE FLOWER—See Didiscus.

BRACHYCOME—See Daisy, Swan River.

BURNING BUSH—See Kochia.

BUTTERFLY-FLOWER—See Schizanthus.

CALENDULA (Pot Marigold) (a)—Culture II or IV.

Orange King—Glowing orange color. Outer petals slightly imbricated while centers are incurved. Ht. 18".

Orange Shaggy—All-America. Deep orange with lighter center. Long fringed overlapping petals, like a Chrysanthemum.

Sunshine—Buttercup yellow, large double flowers. Petals broad and drooping. Free from Calendula odor.

Mixed—

CALIFORNIA POPPY—See Eschscholtzia.

CALLIOPSIS (Tickseed) (a)—Culture II or IV.

Golden Crown—All-America. Rich yellow, maroon center.

Dwarf Varieties, Mixed Colors—Many prettily marked.

Tall Mixed—

CAMPANULA (Canterbury Bells) (b) — Culture VIII.

Single, Mixed Colors—Pyramidal plants, 2 to 3 ft. tall covered with large bell-like blooms.

Double, Mixed Colors—Double blooms in white and shades of blue and rose, that completely cover plant.

CANDYTUFT (Iberis) (a) (s)—Culture III.

White Hyacinth—Plants much branched, each branch a massive thick hyacinth-like spike of pure white. Ht. 1 ft.

Umbellata, Mixed Colors—Umbrella-shaped flower heads on dwarf bushy plants. Very showy. Ht. 1 ft.

CARDINAL CLIMBER (a) — Culture II. Attractive, rapid growing vine, with fern-like lacinated foliage, covered with cardinal-red flowers all summer. Pkt. 15c.

CARNATION, Chabaud's Giant (a) — Culture I or VIII. Double, extra large, clove-scented flowers. Pkt. 15c.

All Flower Seeds **10¢ PER PACKET**
except where otherwise noted

HOW? WHEN? WHERE? WHY?

Gardening . . . the answer to a fundamental need

Too Much Work?

To those who have never known the pleasures of gardening and growing flowers, this glorious activity may seem like hard work. Yet those who predicted that people were lazy and would quit growing plants as soon as the wartime food emergency was over have been amazed at the enthusiasm with which millions of Americans have kept right on growing things. That, of course, didn't surprise those who have always gardened because they know that no other single occupation of man gives as much pleasure to so many people. Folks keep on gardening simply because it's fun.

Or perhaps "fun" is too small a word to use in describing the satisfaction that comes from gardening. Maybe the better way to describe that satisfaction is to tell about the father who said, not so long ago, "Regardless of what the food situation may be, you can be sure I'll keep on gardening. It's the only recreation I've found that the whole family can enjoy together. We have two boys and two girls who never could agree on a common family activity. Now all of us work together in the garden and enjoy it. I'm certain that gardening has brought us closer together as a family."

Yet while gardening is an activity in which the entire family can take part, it is just as much one which needs no company to enjoy.

There is no need to find a course or playing field, or to travel miles to engage in gardening. And millions of Americans find that they don't need a long uninterrupted week end to do a good job of growing things: they manage to fit in their gardening between other tasks and pleasures.

A Fundamental Need

Perhaps the downright satisfaction and pleasure we get out of gardening is evidence that we all need some contact with the soil: that such a contact satisfies some fundamental want in man.

At the same time, there is no reason why we should work any harder than is necessary. Gardening can be hard, or it can be easy. Here is a trick that will help lighten the work for you:

Mulching vs. Cultivation

Sometimes half-truths are as good as whole ones. The furor created by the book, "Ploughman's Folly," which advocated a trash mulch at the surface made sense as far as the mulch was concerned. By plowing or digging in the conventional way and then mulching, the home gardener can take advantage of good soil preparation, plus the

very real saving in labor that comes from using a mulch.

With the right mulch, there is no need to weed, no need to stir the soil, and once that mulch is applied, the need for watering (at least in normal seasons) is all but over. This should save hours of valuable time.

How to Mulch

A mulch is merely a covering of some material which won't support weed growth, and which is porous enough to trap air. This porous quality is important because it keeps down the loss of moisture from the soil and also keeps the heat of the sun from penetrating deeply and hurting root growth.

A perfect mulch is well-rotted, old manure. Never use fresh manure for a mulch because it will ferment and rot, and some of the gases released in this process can damage plants. But when well-rotted, manure not only keeps down weeds and saves moisture, but can be worked into the soil after the growing season is over.

If grass clippings are allowed to lie on the lawn for a day or two to cure, they can be applied in thin layers, and gradually built up to form a thick mulch. If not dried, they may ferment and cause trouble.

Peat moss, if moist when applied, and if kept moistened, makes a perfect mulch. But since it may suck water away from the plants unless already moist, it must never be applied bone dry, nor should it be allowed to dry out. It is clean, weed-free and a good insulator.

Buckwheat hulls, rice hulls, ground corn cobs and clean straw are other materials that are satisfactory.

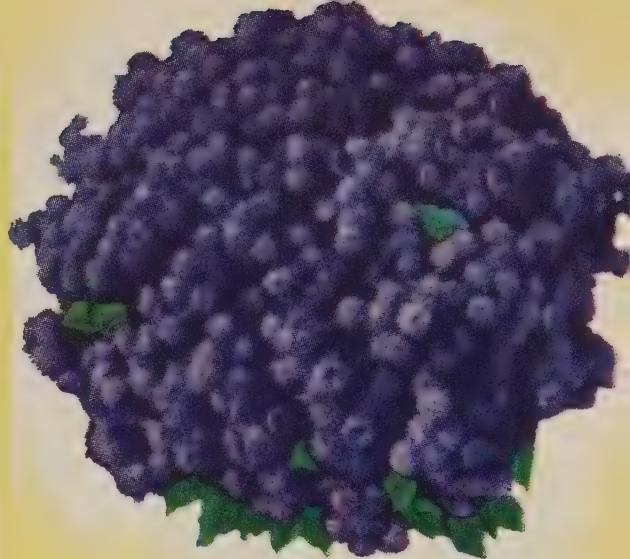
When to Mulch

Most gardeners wait too long to mulch. The soil should be moist, but not wringing wet. If spring rains have made the ground soggy, wait until you can cultivate without packing, and then apply. If the ground is dry, soak the soil thoroughly before mulching.

Mulching and Watering

Always keep in mind that a mulch does not add any water to the soil, nor does it prevent the loss of water through the leaves of the plant. If rains heavy enough to penetrate the mulch do not fall, then you will have to water. This can be done by removing the nozzle from the hose and allowing it to flow out on top of the mulch. If the mulch is thick enough, there should be no washing of the soil.

Clean straw used as a mulch under tomatoes will keep the fruit clean, and in addition will save the labor of staking.



AGERATUM,
Midget Blue



ESCHSCHOLTZIA,
California Poppy



COSMOS,
Radiance



IPOMEA,
Heavenly Blue



CHRYSANTHEMUM
Painted Daisy



DELPHINIUM
Pacific Giant

CASTOR BEAN (Ricinus) (a) — Culture III or VII. Giant, strong growing plant, with ornamental foliage. These plants drive away moles from garden.

CELOSIA (Cockscomb) (a)—Culture I or III.

Shades of Red—Crested flowerheads. Very showy.

Feathered, All Colors—Brilliant silky plumed.

CENTAUREA—See Bachelor's Buttons.

CHRYSANTHEMUM, Single (Painted Daisy), Mixed (a)—Culture II or IV. Well-branched plants, with 3" flowers, all with dark eye, surrounded by narrow yellow ring, then slightly wider crimson ring, followed by dominant color.

CLARKIA (a) (s)—Culture IV. Great spikes of double and semi-double flowers set along stem; dainty colors.

CLEOME (Spider Plant), Pink Queen (a) (s)—Culture II or IV. All-America. Huge heads of true pink; turn white before falling. Airy foliage, branched plants. Pkt. 15c.

COCKSCOMB—See Celosia.

COBAEA SCANDENS (Cathedral Bells or Cup-and-Saucer Vine) (a)—Culture II. Rapid growing vine, bell-shaped green flowers which change to rosy purple.

COLUMBINE—See Aquilegia.

CORAL BELLS—See Heuchera.

COREOPSIS, Double Sunburst (hp) (s)—Culture VI. Double flowers, 1½ to 2-in. across. Keep a long time.

CORN FLOWER—See Bachelor's Buttons.

COSMOS (a)—Culture II or IV.

Dazzler—All-America. Deep crimson maroon flowers, 4 to 5-in. across, with broad, fluted petals. Pkt. 25c.

Orange Flare—Single golden orange flowers.

Orange Ruffles—Same color as Orange Flare, but with extra row of petals. Early flowering. Pkt. 25c.

Radiance—NEW! Winner of highest award in 1948 All-America trials. The first bi-color Cosmos ever to be developed. Striking deep rose petals overlaid with large well-defined zone of rich crimson. Pkt. 50c.

Sensation, Mixed—Very large single flowers, up to 5 in. across. All-America. Earliest blooming. Pkt. 15c.

Yellow Glare—All-America. Single, 2 to 2½-in. flowers in great masses. Slightly later than Orange Flare. Pkt. 15c.

CYNOGLOSSUM (Chinese Forget-Me-Not), Firmament (a)—Culture II. Dwarf bushy plants, bright blue flower. All-America Winner. Easy to grow. Pkt. 15c.

CYPRESS VINE (Star Glory) (a) — Culture II. Graceful twining vine with fernlike foliage and star shaped blossoms. Soak seeds in warm water before sowing.

DAHLIA, Unwin's Ideal Bedding (a)—Culture I or II. Miniature double and semi-double flowers, nearly all twisted. Many colors. Dwarf bushy plants. Pkt. 20c.

DAISY, AFRICAN—See Arctotis.

DAISY, ENGLISH (Bellis Perennis) (hp)—Culture VI. Huge double flowers, the "daisy" of literature. Pkt. 15c.

DAISY, SWAN RIVER (Brachycome) (a) — Culture II. Dwarf plants, covered with dainty flowers, like small Cineararia. Many colors.

All Flower Seeds 10¢ PER PACKET
except where otherwise noted

DELPHINIUM (Perennial Larkspur) (hp)—Culture VI.

Belladonna—Large single flowers, lovely turquoise-blue, loosely arranged on tall slender spikes. Pkt. 20c.

Bellamosum—Single flowers, deep gentian blue, loosely placed on graceful, strong spikes. 3 to 4 ft. tall. Pkt. 20c.

Giant Pacific Hybrids—Extremely large flowers, symmetrically spaced on thin woody stems, almost 100% double. Comparatively mildew resistant. Mixed colors, or Shades of Blue, Pkt. 35c.

DIANTHUS PLUMARIUS (Pinks), Double and Single Mixed (a)—Culture I or VIII. Brilliantly colored, sweet-scented flowers for beds, borders, rock gardens.

DIANTHUS BARBATUS—See Sweet William.

DIDISCUS (Blue Lace Flower) (a) —Culture I or II. Clusters of lavender-blue flowers, like tiny parasols.

DIGITALIS—See Foxglove.

ESCHSCHOLTZIA (California Poppy) (a) (s)—Culture III. Large silky single flowers; many colors.

EUPHORBIA—See Snow-on-the-Mountain.

EVERLASTING FLOWERS (a)—Culture II. A special mixture of flowers that can be dried for winter bouquets—Globe Amaranth, Gomphrena Everlasting, Helichrysum, Clover Strawflower.

FLOWERING FLAX—See Linum.

FOUR O'CLOCK (Mirabilis) (a)—Culture III. Popular old-fashioned plants, with blossoms that open in mid-afternoon. Red, rose, yellow, white, lilac.

FOXGLOVE (Digitalis) (b) (s)—Culture VIII. Long spikes with large thimble-like flowers all drooping toward one side; beautifully spotted. All colors.

GAILLARDIA (Blanket Flower) (a)—Culture II; (hp) Culture VI.

Single, Mixed (a)—Gorgeously colors, daisy-like flowers.

Double, Mixed (a)—Fine annual for cut flowers.

Perennial Monarch Mixed (hp)—Giant flowers, varied colors.

GILLIFLOWER—See Stocks.

GLOBE AMARANTH—See Everlasting Flowers.

GOMPHRENA EVERLASTING—See Everlasting Flowers.

GODETIA (Satin Flower), Double, Mixed (a) (s)—Culture I or II. Bushy plants with masses of double Azalea-like flowers. Many shades of rose, pink, white, blue.

GOURDS, ORNAMENTAL (a) — Culture III. Large foliaged vine. Ripened fruits are singularly shaped, many colored. When dried last for years.

GEUM, Mrs. Bradshaw (hp) — Culture VI. Large, double, fiery scarlet flowers on long stems. Pkt. 20c.



GYPSOPHILIA
Baby's Breath



COREOPSIS
Double Sunburst



ZINNIA, Black Ruby



MARIGOLD, Naughty Marietta



PETUNIA, Rose Marie



CLEOME, Pink Queen



PETUNIA, Cheerful



MARIGOLD, Flash

HOW? WHEN? WHERE? WHY?

Practical answers to every-day questions about home gardening

Pinching Back Flower Plants

If sturdy, stocky plants are wanted, they will need "pinching back." When five or six pairs of leaves have formed, pinch out the top, leaving two or three pairs of leaves on the stem. New shoots will come where the leaves join the stem. Sometimes a second pinch can be made, when these new shoots in turn have formed four or five pairs of leaves, leaving two pairs on each. Pinching increases the number of flowers, though sometimes it decreases their size. Petunias particularly need pinching back if they are to remain short. Towards the end of the flowering season, after Petunias have grown long and lanky, they can be cut back to within an inch or two of the ground and they will throw out new growth. If given a light feeding of mixed fertilizer, these rejuvenated plants will often bloom as well as younger plants early in the season.

Removing Flowers

The gardener can lengthen the blooming season of all annuals and some perennials by removing old flowers as soon as they fade, and preventing the plant from going to seed. Delphiniums and Canterbury Bells will usually respond to this treatment by producing a second crop of flowers in fall.

Flowers in the Vegetable Garden
To have plenty of cut flowers without

disturbing your flower borders, *plant a few rows of flowers along the edge of your vegetable garden.* Or set them out between rows of early lettuce or radishes, where they can bloom after the vegetables have been used.

Large Flowered and Double Petunias

These should never be direct seeded outdoors, but must be started indoors. Use a flat filled with seed-starting mixture. Press soil with a brick or flat piece of wood to firm it. Wet thoroughly. Then broadcast the seed on the surface of the soil. Cover entire flat with a pane of glass and then with a sheet of newspaper. Set in a warm, dark place at 75° to 85° until seed germinates. Then move to a sunny window. If flat dries out slightly before seed sprouts, water carefully with an atomizer. Transplant seedlings when second pair of leaves forms. Move into the garden after danger from frost is past.

D. D. T. and Aster Yellows

Though wilt resistant asters solved the wilt problem, Aster Yellows are still a menace. Now, with D.D.T., we can keep off the leaf hopper, the insect that carries the virus of Yellows to the Aster plant. Regular spraying or dusting with D.D.T. will leave a residue which will kill the leaf hopper when it lights on the plant and before it can stab the leaves and pass on the

virus. So if your Asters have been disappointing lately, try again, using D.D.T.

Formula for Pansy Growing

Pansies are not annuals but nearly hardy perennials that need special culture. Cold frames, with glass sash and mats for winter protection are essential. Soil should be rich: up to one-third of soil can be well-rotted manure or sifted compost. Sow seed in August. Protect frame with shades made by tacking muslin or cheese cloth over window screens. Thin plants to stand 4" x 4". After first frosts, cover with glass and mats, and allow to freeze slowly. Remove mats in early spring and allow sun to warm frame. Move plants into permanent position when in full bloom. Keep faded flowers picked: they will stop blooming if any seeds are allowed to form. Growing good Pansies from seed is the test of a real gardener.

Two Interesting House Plants

The Heavenly Blue Morning Glory makes an excellent house plant for winter flowering if grown in a sunny window. Start new plants in late August, using 6" pots (they make heavy root growth). They can be trained up strings on either side of the window. Lobelia plants can be lifted just before frost, cut back, potted and will flower indoors in late winter.



GODETIA



DIDISCUS

GYSOPHILA (Baby's Breath) (a)—Culture I; (hp) Culture VI.

Annual Gypsophila (a)—Open, bell-shaped blooms used so much for mixing with other flowers. White or Pink.

Perennial White (hp)—Tiny flowers on slender stems, producing a mist-like effect. Thrive in any soil.

HELIANTHUS, Sungold (Sunflower) (a)—Culture II. Large brilliant golden yellow double flowers. Pkt. 15c.

HELIOTROPE, Mammoth Mixed (a)—Culture I or V. Everyone loves the fragrance of Heliotrope. Pkt. 15c.

HEUCHERA (Coral Bells) (hp)—Culture VI. Bright coral flowers on wiry stems. Charming for rock garden. Pkt. 25c.

HIBISCUS (Giant Mixed) (hp)—Culture VI. Showy shrub-like plants; enormous white, pink and red flowers. Pkt. 15c.
HELICHRYSUM—See Everlasting Flowers.

HUNNEMANNIA (Bush Eschscholtzia, Mexican Tulip Poppy or Santa Barbara Poppy) (a)—Culture III. Shrubby bushes with large cup-shaped flowers on stems 1 ft. long. Petals are broad and crinkled.

HOLLYHOCK, Double Mixed (hp)—Culture VI or VIII. Great spikes of double blooms. Long blooming season if faded flowers are picked. Hollyhock rust can be overcome by treating as a biennial. Pkt. 15c.

IBERIS—See Candytuft.

IPOMEA—See Morning Glory.

KOCHIA (Burning Bush or Fire Bush) (a)—Culture III. Close, compact bright green pyramidal bush, moss-like foliage turns brilliant red in fall. Fine hedge plant.

LADY SLIPPER—See Balsam.

LATHYRUS LATIFOLIUS—See Perennial Sweet Pea.

LARKSPUR (Annual Delphinium) (a) (s)—Culture IV or II.

Blue Spire, Giant Imperial—Deep Oxford blue, dbl. Pkt. 15c.

White King, Giant Imperial—Large dbl., pure white. Pkt. 15c.

Pink Perfection—Lively light pink, large dbl. florets. Pkt. 15c.

Ruby—Glorious red double florets. Pkt. 15c.

LINUM (Flowering Flax) (a)—Culture III; (hp) Culture VI.

Scarlet Flax (a)—Glossy-red flowers, 1-in. or more across. While they last only one day, new blooms appear each morning.

Perenne Blue (hp)—Many light blue flowers all summer.

LOVE-IN-A-PUFF—See Balloon Vine.

LOBELIA, Crystal Palace (a) (s)—Culture I or V. Small, round, compact plants covered with deep blue flowers.

LUPINS, Russell's Choice Mixed (hp) (s)—Culture III or VII. All-America. Well-rounded thickly set spikes of extraordinary colors. Wonderful border flower. Pkt. 25c.

MARIGOLDS (a)—Culture I or II.

Burpee's Gold—Huge double flowers, sweet-scented. Pkt. 15c.

Crown of Gold, Odorless—All-America. Short, quilled center petals, flat, deep orange guard petals. Pkt. 15c.

Dwarf Royal Scot—All America. Double, small mahogany blooms with gold stripe. Dwarf compact plants. Pkt. 15c.

Flash—Dwarf French. Single 1 3/4-in. flowers; varying yellow to red. All-America. Pkt. 25c.

Guinea Gold—Carnation flowered. Orange, flushed with gold.

Harmony Type, French Dwarf Dbl. Hybrids—All-double 1 3/4-in. flowers. Combinations of yellow, orange, maroon. Pkt. 15c.

Melody—French Dwarf Harmony. All-America. Golden-orange 1 1/4-in. flowers. Plants 12-15" tall. Early. Pkt. 15c.

Naughty Marietta—New dwarf French single. Rich golden yellow, blotched maroon at base of petals. Pkt. 25c.

Spry—Extra dwarf dbl. French type; 2 1/2-in. flowers with clear yellow center, mahogany-red guard petals. Pkt. 15c.

Sunkist—Dwarf dbl. French. All-America. Mound-shaped 6 to 8-in. plants covered with deep orange flowers. Pkt. 15c.

Sunset Giants—Largest of the Marigolds, blooms 5-in. and over. Quilled and incurved petals. Pkt. 15c.

Scarlet Glow—French Dwarf Double. Open deep scarlet and turn rich tangerine. Bushy plants, bloom in 10 wks. Pkt. 15c.

Yellow Pygmy—French Dwarf Double. Tiny 6" plants, above which are double, 1 1/4-in. lemon-yellow flowers. Pkt. 15c.

Yellow Supreme—Carnation flowered. All-America. Creamy lemon yellow 3-in. blossoms. Sweet-scented.

Yellowstone, Mission Giant—All-America. Bright yellow 2 1/2-in. flowers, Chrysanthemum-like form. Late. Pkt. 20c

MIGNONETTE (Reseda) (a)—Culture III. Quant, old-fashioned blooms, highly prized for fragrance.

MIRABILIS—See Four O'Clocks.

MOON FLOWER (a)—Culture VII. Quick-growing vine, white 5-in. flowers that open in evening. Very fragrant.

MORNING GLORY (Ipomea) (a)—Culture III, V or VII.

Heavenly Blue—Extremely large blue flowers.

Pearly Gates—All-America. Unusually large white flowers, luxuriant foliage. Pkt. 25c.

Scarlet O'Hara—All-America. Rich wine-red or deep crimson blossoms about 4-inches across. Pkt. 20c.

Tall Mixed—

MOSS ROSE—See Portulaca.

MOURNING BRIDE—See Scabiosa.

NASTURTIUM (a)—Culture III or V.

Dbl. Glorious Gleam Hybrids—Dwarf compact plants. Large double flowers on long stems. Many colors.

Golden Gleam—Semi-tall plants. Double and semi-double, fragrant gold blossoms.

Golden Globe—Giant double and semi-double, pure golden yellow blooms; dwarf plants. Pkt. 15c.

Mahogany Gem—Rich mahogany, the darkest Nasturtium. Dwarf.

Salmon Gleam—Tall double. Rich salmon.

Scarlet Gleam—Tall double. Fiery orange-scarlet.

Scarlet Globe—Dwarf. Double and semi-double. Pkt. 15c.

NEMOPHILA (Baby Blue Eyes) (a)—Culture II. Spreading plant. 6" tall; many cup-shaped, sky blue flowers.

NICOTIANA (Flowering Tobacco) (a) (s)—Culture I or II. Long tubed, petunia-like blooms with rich, spicy fragrance. Bushy plants, 30-36" tall.

PAINTED TONGUE—See Salpiglossis.

MARIGOLD GIGANTEA



All Flower Seeds 10¢ PER PACKET
except where otherwise noted

HOW TO GROW all flowers listed in this catalog

Behind the listing of every flower, you will find a number from I to VIII. These numbers refer to one of the following cultures, which give directions for growing every flower we list.

While growing flowers from seed is sometimes more difficult than vegetables, largely because we have so many different flowers, each with its special needs, the following eight different methods should cover the individual needs of any flower listed. In general, the same fundamentals apply as in growing vegetables: loose, well-drained soil to which has been added plenty of organic matter, fed by applying from $2\frac{1}{2}$ to 3 lbs. of a good mixed fertilizer to every 100 square feet. However, when starting seedlings in flats or pots indoors, do not add fertilizer to the starting soil, since the seed contains all the food the young plant will require until it begins to form true leaves. Do add fertilizer to the soil in which plants are to flower.

One of the important problems in the home garden is to keep up a continued show of bloom. This calls for using several different types of annuals, such as those which must be planted very early (see Culture IV) and those which bloom later (Cultures I and II). If some of the cool-weather annuals in group IV are seeded in midsummer and kept well watered, they will grow slowly until the cooler days of fall start them into more active growth. These will produce late flowers. Also, quick-growing annuals from Culture II can be seeded at intervals for succession bloom during the summer.

One important factor in lengthening the flowering season of all annuals is to cut off all flowers as soon as they fade. Annuals complete their life cycle when seed is formed, and usually stop flowering as soon as this happens. By preventing seeding through the removal of faded flowers, the plant is kept growing and blooming.

Culture I

These flowers need a long season and so must be started indoors if a full blooming period is to be had. If early bloom is not important, they will bloom later in the summer when sown directly in the open garden. Some gardeners sow both ways so as to be sure to have continuous bloom.

For directions on starting seedlings in flats, see page 14 in vegetable section. Remember that flower seedlings are frequently more delicate than those of vegetables, so extra care in watering should be used. Never let the flats dry out. Shading the soil with a pane of glass covered with newspaper is important in the case of fine seed such as petunia, since these are easily injured by hot sunshine.

When seedlings show their second pair of true leaves, transplant $2\frac{1}{2}$ " x $2\frac{1}{2}$ " to give the individual plants a chance to develop. Expose gradually to outdoor conditions and plant outside when danger from frost is past. When sown outdoors without transplanting, follow instructions under Culture II.

Culture II

These are the quicker growing annuals, which can be sown directly in the garden and will bloom in time to make a good display for most of the summer. If they come up too thickly, the extra plants can be transplanted to another

location. If particularly early flowers of these are wanted, they can be started as directed under I.

Because flower seedlings are rather delicate, extra care in preparing the seed bed will pay dividends in better plants. Spread about $2\frac{1}{2}$ lbs. of good general mixed fertilizer over every 100 sq. ft. Next, apply all the organic matter such as peat or compost that you can spare, and dig in the fertilizer and organic matter. Rake surface to a fairly smooth seed bed and sow seeds at depths recommended in catalog listings. Water thoroughly with a fine spray and keep moist until seedlings form their first true leaves. When second true leaves have formed, any plants not needed in that particular location can be transplanted elsewhere.

Culture III

These flowers do not transplant well, and should be planted out-of-doors where they are to bloom. Seed as soon as danger from heavy frosts is over. Otherwise, culture is same as II. When seedlings are large enough to select the best ones, thin out. All of these can be handled as pot-grown seedlings as described under VII if early bloom is wanted. Do not try to handle as seedling transplants. When setting out from pots, disturb roots as little as possible.

Culture IV

These flowers are all unusually hardy annuals that can withstand heavy frosts. In fact, they are often sown in fall, just before the soil freezes for the winter, in which case they won't germinate until spring. Fall sowing gets the seeding job out of the way in spring when time is precious.

If not fall-sown, they should be seeded as early in spring as the soil can be worked. Most of them make their growth early and do very little during the heat of summer. Often, by cutting off the faded flowers and feeding the plants lightly, they can be revived so as to bloom in fall.

Culture V

These flowers, while garden subjects, are also useful as winter flowering house plants. For garden use, handle according to II. For winter flowering inside, plant fairly late in the season, as old plants will not bloom well. As soon as seedlings have made their second pair of leaves, plant in $2\frac{1}{2}$ " pots (no larger) and keep shifting to larger pots, never more than two sizes larger with each shift, until they are in 6" pots. Annuals in pots should have five to six hours of direct sunshine if they are to flower indoors.

Culture VI

Perennials can be seeded at almost any time during the year except for a short season in fall, when the young seedlings would not be mature enough when frost comes to survive. They can be seeded in cold frames before the ground thaws in spring and will grow when warmer weather comes. Most experienced gardeners, however, prefer to sow them in late spring after the heavy rush of work is over. A cold

frame or sheltered bed which can be shaded from the direct sun is best. Prepare soil thoroughly with plenty of organic matter, peat or vermiculite. A loose, friable soil will produce a thick mat of roots so that the seedlings will transplant easier. Perennial seedlings are particularly weak growers and so need extra care. In covering the drills in which the seeds are sown, use either pure clean sand or a mixture of half sand and half peat, to prevent packing of the soil over the seeds. Always water with a fine spray.

As soon as the second leaves form, seedlings can be transplanted into their permanent position. Or if more convenient, they can be left in the seedbed until the following spring. Under this culture, only a few species will bloom the first year, and even those that do bloom will not throw typical flowers until the second year. Planting earlier does not increase the chances for first-year blooms, but if for any reason it is more convenient to start perennials earlier in the season, Culture I may be used. Delphinium seed is often started in late August to take advantage of cooler night temperatures, as this seed will not germinate when soil readings go above 77 degrees.

Culture VII

These annuals need a longer growing season than can be given them outdoors, but because they do not transplant readily, they must be started in pots and set out into permanent position without disturbing the roots. Otherwise culture is the same as I. The use of plant bands (boxes made of veneer or waterproof paper) which are filled with soil in which seeds are planted in the same way as in pots, allows you to set out these delicate seedlings without disturbing the roots. The band will soon rot and the seedlings will grow as though started in the garden without transplanting.

One difficulty experienced by the home gardener without a greenhouse is that clay pots dry out too rapidly. This can be overcome by filling an ordinary seed flat with moist peat moss or vermiculite and plunging the pots into this. Be sure to keep the peat moist, since it will rob the soil in the pots of moisture if not enough water is applied.

Culture VIII

These flowers are biennials: that is, they make leafy growth the first year, but don't flower. The leafy growth of the first year stores food for blooming the following year. The flower spike or stem appears the second year, after which the plant dies.

This means that if a continuous show of bloom is wanted from biennials, a new planting must be made each year to replace those that bloom that year. Biennials are handled in the same way as perennials, except that to allow the plant to store enough food for the next year's bloom, the seed should be sown as early in spring as the soil can be worked. See page 31 for special instructions for handling Pansies, biennials that are handled in a special way.

SPECIAL NOTES ON FLOWER CULTURE

For simple cultural data on each of the flowers listed here, refer to the notes indicated by the letter after each.

Ageratum.....A	Carnation.....C
Alyssum (a)....A	Castor Bean....B
Alyssum (h.p.) D	Celosia.....A
Anchusa.....B	Chrysant'mum A
Antirrhinum...C	Clarkia.....B
Aquilegia.....D	Cleome.....B
Arctotis.....A	Coreopsis.....D
Aster.....A	Cosmos.....C
Bachelor's	Cynoglossum...B
Button.....C	Dahlia.....A
Ballon Vine...C	Delphinium...D
Balsam.....B	Dianthus.....C
Blue Lc. Flower B	Eschscholtzia .C
Calendula.....C	Everlas'g Flwr..A
Calliopsis.....A	Four O'Clock...B
Candytuft.....C	Gaillardia.....A

Gaillardia.....D	Nemophila.....A
Geum.....D	Nicotiana.....A
Godetia.....A	Pansy.....D
Gourds, Ornmtl. B	Petunia.....C
Gypsophila.....D	Phlox.....C
Helianthus.....D	Poppy, Ic. Mxd. A
Hollyhock.....D	Portulaca.....C
Kochia.....B	Salpiglossis...A
Larkspur.....C	Scabiosa.....A
Linum (a).....A	Schizanthus...A
Linum (w.p.)...D	Shasta Daisy...D
Lobelia.....A	Snow-on-the-
Lupines.....C	Mountain...B
Lupins.....D	Statice.....A
Marigold.....A	Stocks.....A
Mignonette...C	Tithonia.....B
Moon Flower...B	Verbena.....A
Morning Glory..B	Zinnia.....A
Nasturtium...B	



HOLLYHOCK, Double

ANTIRRHINUM,
Tetra-Snapdragon



SCABIOSA,
Blue Moon

ZINNIA,
Will Rogers

A—These Do Well When Sown Where They Are to Bloom

These annuals can be started outdoors directly for blooming where sown, or can be transplanted if they come up too close together. A special outdoor seed bed can be used to start enough plants to fill an entire garden. Because of the small area that will be needed, a special soil, made up as recommended under "Transplanting," can be used in this bed. This method is convenient when tulips and other bulbs occupy the beds in early spring.

B—Do Not Transplant These

These annuals do not tolerate transplanting, and should be sown thinly where they are to bloom. Mixing seed with sand before sowing will help distribute them evenly and thinly. Thin to proper spacing if they come up too thickly.

C—Seed These Early—Or in Late Fall

The hardy annuals in this group can be sown outdoors as soon as the soil can be worked in spring. Or they can be seeded in fall, just before the soil freezes for the winter and will sprout long before the soil can be worked in spring. Because these early seedlings are usually through blooming by midsummer, be ready to replant the bed with other annuals for late bloom.

D—Seed Almost Any Time (But Shade the Seedlings)

Perennials (plants that live over from year to year) can be seeded at any time after the danger from frost is over up to early summer. They are best started in a cold frame with some provision for shading the bed. If no cold frame is available, grow them in flats placed under the shade of trees or shrubs, but light sunshine should filter through to them: perennial seedlings won't grow in full shade.

To shade cold frames from full sunlight, cover ordinary window screens with cheesecloth or muslin. After sowing, keep watering with a fine spray (they may need watering twice a day in midsummer heat) until seedlings are ready to transplant. If three pairs of leaves have formed at least a month before killing frost is expected, they can be moved into permanent position the same fall; otherwise carry over in the cold frame until spring. Many perennial seeds sprout slowly: if you have followed directions don't worry if they don't show up within a week or two.

E—Start These Indoors For Early Bloom

These will do well when sown directly in the garden and where late bloom is wanted, some of the packet should be planted in this way. For outdoor culture, see "A." However, for early bloom, some of the seed should be started indoors.

F—These Vines Need Special Treatment

This is for vines that don't transplant well, but need a long season to flower. All need rather high heat, so a warm spot (temperature between 75° to 85°) is necessary. However, watch out that high heat does not dry out seedlings.

Fill 3" pot with seed-starting mixture of soil. Press two seeds into each pot and water well, place in heat until seeds sprout. May be grown in a sunny window, even if cooler, once seedlings are up. As soon as vines begin to twine, provide a stake for support. When danger from late frost is over, knock plants out of pots, disturbing roots as little as possible and set where they are to grow.

If early bloom is not wanted, direct seed outdoors, but ground must be warm (wait until after late irises and lilacs have faded). Do not grow in rich soil as this promotes leafy growth at expense of flowers. If soil is rich, add gravel or old weathered coal ashes.

HOW? WHEN? WHERE? WHY?

Easiest Annuals to Grow

We are often asked to recommend annuals for growing without much care, particularly around summer cottages used only on week ends, or where the soil is poor. We suggest *Calliopsis*, *Gaillardia*, *Marigold*, *Petunia*, annual *Phlox*, *Scabiosa*, *Verbena* and *Zinnia*. These usually bloom profusely without care or extra watering, though some water applied when seed is sown will often insure germination.

Annuals for Fall Bloom

By midsummer, many spring-sown annuals have seen their best days. While *Petunias* can be cut back to force new bloom, others can be replaced by sowing new seed late in June among the old plants. Try *Calendula*, *Candytuft*, *Celosia*, *Eschscholtzia*, annual *Phlox*, *Sweet Alyssum*, and small flowered *Zinnias* for this purpose. These late-sown annuals will need extra watering to germinate and grow. The *Alyssum* and *Candytuft* often survive early frost and keep flowering along with the hardy Mums.

Annuals for Edging

Low growing annuals planted at the edge of a garden make it look neat and finished. The best plants for this purpose are *Sweet Alyssum*, *Ageratum*, dwarf *Marigold*, dwarf *Petunias*, and *Zinnia linearis* or *mexicana*. Edging annuals should be pinched back once to keep them especially low.

Annuals for Fragrance

We are often asked, "What annuals are really fragrant?" We recommend *Alyssum*, *Candytuft*, *Carnation*, *Mignonette*, *Gleam Nasturtiums*, *Nicotiana*, *Petunia*, *Scabiosa*, *Stocks*, *Sweet Peas* and *Wallflower*.

Flowers for Shady Locations

Most annuals need plenty of sunlight, but there are a few which do fairly well in the shade, or with partial sun. The following are worth a trial in shady spots:

<i>Cornflower</i>	<i>Candytuft</i>
<i>Nasturtium</i>	<i>Larkspur</i>
<i>Pansy</i>	<i>Lupine</i>
<i>Nicotiana</i>	<i>Godetia</i>
<i>Vinca</i>	<i>Lobelia</i>
<i>Coreopsis</i>	<i>Bleeding Heart</i>
<i>Cleome</i>	

In the *vine group*, those which often prosper in fairly shady places are *Cardinal Climber*, *Cup-and-Saucer Vine*, and *Morning Glory*.

Flowers for Poor Soil

Of course, the right answer to poor soil conditions is "Improve the soil!" But if you can't or don't want to do this, you can usually get fairly good results in poor soil with these:

<i>Amaranthus</i>	<i>Marigold</i>
<i>Balsam</i>	<i>Nasturtium</i>
<i>California Poppy</i>	<i>Petunia</i>
<i>Calliopsis</i>	<i>Portulaca</i>
<i>Gaillardia</i>	<i>Sweet Susan</i>

Flowers for Hot, Dry Locations

In spots where the sun beats down mercilessly all day long, many flowers can not prosper. But some of the annuals can do well, even in these difficult locations. Here's a good list:

<i>Sweet Alyssum</i>	<i>Marigold</i>
<i>Ageratum</i>	<i>Petunia</i>
<i>Swan River</i>	<i>Phlox, Annual</i>
<i>Daisy</i>	<i>Poppy, California</i>
<i>Bachelor Button</i>	<i>Portulaca</i>
<i>Cosmos</i>	<i>Scabiosa</i>
<i>Dianthus</i>	<i>Zinnia</i>
<i>Dimorphotheca</i>	<i>Four O'Clock</i>
<i>Gaillardia</i>	<i>Salvia</i>

Perennials for hot locations are less plentiful, but you can usually do well with *Babysbreath*, *Perennial Asters*, *Sedum Acre*, *Statice*, and *Blanket Flower* (*Gaillardia*).

For Successive Sowings

Some of the annuals which come into bloom quickly keep blooming for only a little while. If you want them in bloom through the season, make several successive sowings at two to four week intervals. Flowers in this class include:

<i>Calliopsis</i>	<i>Larkspur</i>
<i>Candytuft</i>	<i>Love-in-a-mist</i>
<i>Cornflower</i>	<i>Mignonette</i>
<i>Forget-me-not</i>	<i>Poppy</i>
<i>Gypsophila</i>	

Do Annuals and Perennials Need Lime?

Yes, flowers need calcium, which lime supplies. However, it is possible to get too much lime. Soils that have a pH of much over 7.2 may need something to make them more acid. From 0.0 to 6.9 is acid or "sour," while 7.0 and above is alkaline or "sweet." All the gardener needs to know about pH is that if he will keep his soil between 6.0 and 6.9, the plant food elements in his soil will be most readily available. Above that, iron, sulfur and other elements lock up and are not available. Below that, other elements, principally calcium, cannot be used by plants. A simple \$1.00 soil test kit will give you a pH reading of your soil and tell you what to do to correct it.

Don't Sprinkle—Irrigate

Old timers talk about sprinkling a garden. Irrigation describes what we are after better than sprinkling, because what we want is a long, slow soaking of the soil so that water penetrates to a depth of several inches.

Water should always be applied so that the roots will be lured downwards rather than growing upwards as is the case when only the surface is moistened. Properly done watering need not be repeated oftener than once or twice a week.

An excellent way to apply large amounts of water is by means of the Soil Soaker, which allows water to ooze out slowly onto the surface. For small areas, remove the hose nozzle and allow the stream of water to flow out onto a board to break its force.



ASTER, Wilt-resistant



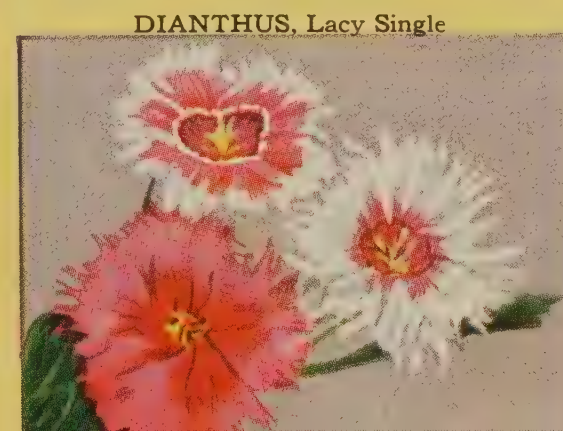
ANTIRRHINUM, Semi-tall



AQUILEGIA, Long-spurred



CHRYSANTHEMUM, Painted Daisy



DIANTHUS, Lacy Single

PANSY (a) (s)—See Page 31 for Special Culture.
Swiss Giants—Plants exceptionally strong and robust. Flowers unusually large, perfectly round with overlapping petals of heavy substance; long sturdy stems. Pkt. 50c.
TUFTED PANSY—See Viola.
PERIWINKLE—See Vinca.

PETUNIA (a)—Culture, Large Flowered, I; Small Flowered, I or IV.

America, All Double—All-America. Carnation-flowered. Mauve-pink, 2-in. blooms completely cover compact plants 1 ft. tall with spread of 18-in. Very early; bloom till frost. Pkt. 50c.
Blue Bee—Single, small flowering. A lovely blue. Pkt. 15c.
Burgundy—Large flowering, single, plain edged. Rich wine red with contrasting white throat. Pkt. 25c.
Cheerful—Single dwarf, small flowering. Gay salmon-pink, veined with rose toward throat. All-America. Pkt. 25c.
English Violet—Single dwarf, small flowering. A distinct new color. Rosy mauve-violet. Free flowering. Pkt. 20c.
Flaming Velvet—Single, plain edged. Rich velvety-crimson. The best of its color. Pkt. 20c.
Fluffy Ruffles—Very large, finely fringed and so heavily ruffled they appear double. Delicate light shades. Pkt. 25c.
General Dodds—Velvety vivid dark crimson. Pkt. 15c.
Giants of California, Mixed—A well balanced mixture of large fringed, ruffled flower, light and dark shades. Pkt. 25c.
Glamour—All-America. Huge 5-6-in. blooms; appear when plant only 6-in. First appear dbl., then petals fall back. Pkt. 25c.
Glow—Dazzling carmine-red flowers, completely cover the dwarf mound-like plants. All-America Silver Medal. Pkt. 25c.
Howard's Star—Red purple with distinct white star. Single.
Martha Washington—Blush pink deepening to dark violet at the throat; ruffled. Dwarf plants. Pkt. 25c.
Rose of Heaven—Rich crimson rose, with inconspicuous white throat. Single flowers. Dwarf plants. Pkt. 15c.
Rosy Morn—Rose-pink, with white throat. Pkt. 15c.
Snow Storm—Glistening white 4 to 5-in. flowers, shadowing yellow in the throat. Single, plain edged. Pkt. 20c.
Theodosia—Huge single, fringed; rose, gold throat. Pkt. 25c.
Balcony Type Petunias—White, rose, red, blue. Pkt. 20c.

PHLOX (a)—Culture II. One of the easiest grown and most satisfactory of all summer-flowering annuals. Begins to bloom early summer and lasts until frost if faded flowers are removed. Red, rose, or mixed, Pkt. 15c.

PINKS—See Dianthus.
PINCUSHION FLOWER—See Scabiosa.

POPPY (a)—Culture IV; (hp) Culture VI.
American Legion (a)—Enormous orange-scarlet Shirley.
Sweet Briar (a)—Flowers resemble double Begonias in form and contain an assortment of lovely light shades. Pkt. 15c.
Shirley, Mixed (a)—Pink, salmon, apricot.
Iceland Poppy (hp), Mixed—Immense blooms, very long stems. Excellent color balance. Blooms first year.
Oriental Scarlet (hp)—Flowers over 6-in. across, vivid scarlet. May be left undisturbed for years. Pkt. 15c.
California Poppy—See Eschscholtzia.
Santa Barbara or Mexican Tulip Poppy—See Hunnemannia.

GEUM
 Mrs. Bradshaw



PORTULACA (Moss Rose) (a)—Culture III.
Jewel—Four times as large as the original Portulaca; brilliant deep crimson color. Free flowering. Pkt. 25c.
Single Mixed
Double Mixed—Pkt. 15c.
POT MARIGOLD—See Calendula.
RICINUS—See Castor Bean.

SALVIA (Flowering Sage) (a)
American, or Globe of Fire (Scarlet Sage)—Culture I. Loose sprays of rich scarlet blooms. Very uniform. Pkt. 25c.
Blue Bedder—Culture I, II or VI. A rich Wedgewood blue. Can be dried as an Everlasting. Pkt. 20c.

SALPIGLOSSIS (Painted Tongue) (a)—Culture III. Large lily-like, velvety flowers. Many bright colors.
SATIN FLOWER—See Godetia.

SCABIOSA (Mourning Bride or Pincushion Flower) (a)—Culture III or IV.
Blue Cockade—Deep azure blue, dbl. conical flowers. Pkt. 15c.
Blue Moon—Double flowers made up of heavy, wavy petals without the usual pincushion center. Lavender-blue. Pkt. 15c.
Heavenly Blue—All-America. Round, azure-blue flowers. Pkt. 15c.
Peace—All-America. Pure white 2-in. flowers, with no tinge of pink or mauve. Vigorous plants. Pkt. 15c.
Rosette—Deep rose suffused salmon color. Double Pkt. 15c.
Mixed—
SCARLET FLAX—See Linum.
SCARLET SAGE—See Salvia.

SCHIZANTHUS (Butterfly-Flower or Poor Man's Orchid) (a)—Culture II or IV. Bushy plants covered with dainty flowers like tiny butterflies. Finely laciniated foliage. Very showy plant. Pkt. 25c.

SHASTA DAISY, Alaska (hp)—Culture VI. Giant flowers, hardy plants. Easily grown from seed.
SNAPDRAGON—See Antirrhinum.



MARIGOLD, French Dwarf



CALENDULA, Frilled Beauty



CELOSIA, Feathered

SNOW-ON-THE-MOUNTAIN (Euphorbia) (a)

—Culture III. Very showy plant, 2 ft. tall; foliage edged white and green. Small white flowers.

STAR GLORY—See Cypress Vine.

STATICE (Sea Lavender) (a)—Culture I. Masses of dainty flowers in large panicles, giving a mist-like effect. When dried, flowers last for months. Pkt. 20c.

SPIDER PLANT—See Cleome.

STRAW FLOWER—See Everlasting Flowers.

STOCKS (Gilliflower) (a)—Culture I or IV.

Giant Imperial—Large flowers, long stems, high percentage of doubles. Many colors. Very early. Pkt. 25c.

Beauty of Nice—Mammoth double. Flesh color. Pkt. 15c.

Large Flowering Dwarf Ten Week, Mixed—

SUNFLOWER—See Helianthus.

SWEET PEAS (a)—Culture III.

Early Flowering Spencer—Individual colors and mixed. Pkt. 15c.

Late or Summer Flowering Spencer—Extremely hardy, productive. Heat resistant. In individual colors, or mixed. Pkt. 15c.

Ruffled Spencer—Lovely ruffled flowers, many varieties of individual colors, and mixed. Pkt. 15c.

Perennial Sweet Pea (Lathyrus latifolius) (hp)—Culture VI. Climbing vine with clusters of sweet-pea-like flowers.

SWEET SULTAN, Imperialis (a)—Culture II or IV. Artistic shaped flowers; long strong stems. Have soft fragrance.

SWEET WILLIAM (Dianthus barbatus) (hp)

—Culture VI. An old-fashioned flower with delightful fragrance. Clusters of many colors and combinations. Double Mixed, Pkt. 15c; Single Mixed, Pkt. 10c.

THRIFT—See Armeria.

TICKSEED—See Calliopsis.

TITHONIA, Fireball (Mexican Sunflower or Golden Flower of the Incas) (a)—Culture I. Dazzling scarlet, large single flower. Plants 6 to 8 ft. tall.

TRITOMA (Red Rot Poker) (hp)—Culture VI. Tall spikes topped by narrow, tubular flowers from pale yellow to orange-red. Require protection during winter, unless in very sheltered position. A handsome, showy border plant.

VERBENA (a)—Culture I.

Lavender Glory—All-America. A true lavender with medium-sized creamy white eye. Distinctly fragrant. Pkt. 15c.

Mammoth White—Dwarf plants with huge heads. Pkt. 15c.

Scarlet Queen—Rosy scarlet, large white eye. Gigantea type; single florets 1-in. in diameter. Pkt. 15c.

Shades of Blue, Mammoth Type—

Mixed—Pkt. 15c.

VINCA (Periwinkle) (a) (s)—Culture III. Bushy plants; dark green glossy foliage; large single round flowers. Mixed colors. Nice pot plant.

VIOLA (Tufted Pansy) (hp)—Culture VI. Smaller flowered than pansies. Easily grown. Ht. 6-in. Pkt. 20c.

WALLFLOWER, Annual Single, Mixed (a)—Culture I or V. Creamy white, yellow, light brown, red, sweet scented flowers on 1 ft. plants.

WILD FLOWER MIXTURE—Culture II or III. Splendid mixture of old-fashioned garden flowers, various kinds and colors, for interesting border plantings.

ZINNIA (a)—Culture I or II.

Black Beauty—All-America. Deep velvety maroon, Lilliput or pompon. Effective with lighter colors. Pkt. 15c.

Crown of Gold—Giant flowers, petals deep golden yellow at base, with individual colors at tip. Pkt. 15c.

Dahlia Flowered—Yellow, red, pink, orange. Pkt. 15c.

Fantasy Zinnias—Shaggy, twisted petals.

Melody (orchid lavender); **Star Dust** (clear golden yellow); **Wildfire** (scarlet); **White Light** (white); also **Mixed**, Pkt. 15c.

Giants of California—Immense double flowers, overlapping petals long strong stems. **Mixed**, Pkt. 15c.

Lilliput or Pompons—Dwarf bushy plants covered with 1-in. double blooms. **Pastel Mixture** (pastel shades) or **Mixed**.

Linearis—Deep orange-yellow single 1½-in. blossoms, each petal with narrow yellow stripe down center. Pkt. 15c.

All Flower Seeds 10¢ PER PACKET
except where otherwise noted

Mexicana or Miniatures—Small double and semi-double blooms; shades of yellow, orange, red, maroon; some tipped with gold.

Navajo—Medium size, semi-double and double blossoms with long narrow petals, each tipped white or cream. Lilac, russet, crimson, orange, yellow, pink and other pastels. Pkt. 15c.

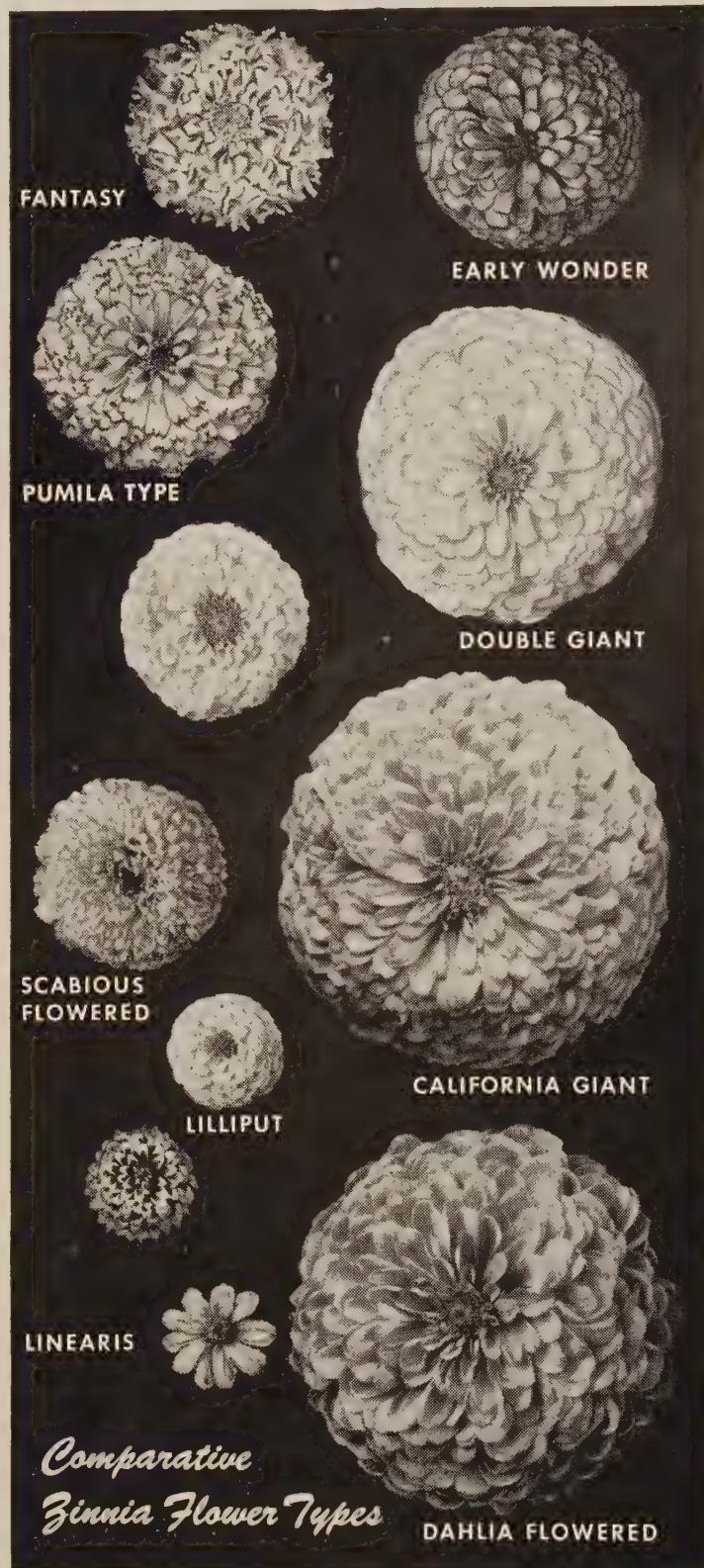
Pumila Sunshine Tints—Symmetrical 2½-in. flowers, in autumn tints and pastel shades. Pkt. 15c.

Scabious Flowered—Medium sized flowers, resembling the Scabiosa and Harmony Marigold. Many colors. Pkt. 15c.

Super Crown O'Gold, Pastel Tints—Large flowers in pastel shades, each petal overlaid at base with golden yellow. Pkt. 15c.

Tom Thumb Lilliput—Compact plants only 4 to 6-in. tall, covered with pompon flowers. Red, orange, yellow, pink, rose. Pkt. 15c.

Will Rogers—A striking new red. Blooms 6-in. across and often 4-in. deep, resembling the show Dahlia. Pkt. 15c.



*Comparative
Zinnia Flower Types*

ZINNIA TYPES—A guide to size, formation, and nomenclature. (Illustrations approx. 1/3 actual size.)

Flower Garden PLANTING GUIDE

KEY—For classification of flowers by purpose, location, etc., see the second column below. The meaning of the key letters in this column is as follows:

- A—For dry, hot locations
- B—For a succession of blooms
- C—For shady locations
- D—For poor soil
- E—For edging
- F—For the rock garden.

- G—For their foliage
- H—Everlasting for winter bouquets
- I—For their fragrance
- J—For porch or window boxes
- K—Climbing Vines
- L—For backgrounds

	Height (Inches)	Suitable for	Average Days to Germinate	Approx. Time of Bloom	Shape of Plant	Marigold	8-36	B J	5-8	6-8 Wks.	bushy
						Mignonette	10-12	B I		3-4 Mos.	erect
						Moon Flower	12 ft. or more	I K	5-8	4-5 Mos.	vine
Ageratum	4-12	E F J	5-10	10 Wks.	bushy	Morning Glory	12 ft. or more	A K	5-8	3-4 Mos.	vine
Alyssum, Sweet	2-12	B C D E F I J	5-10	6 Wks.	spreading	Nasturtium	12-36	D E F K	8-15	2-3 Mos.	bush. vine
Antirrhinum	12-60	C I L	20-25	3-4 Mos.	bushy	Nigella	10-18	B F	10-15	10-12 Wks.	bushy
Aquilegia	18-36	C E F	15	3 Mos.	branchy	Nicotiana	30-48	I	20-25	10-12 Wks.	branchy
Balsam	14-20	A E	10-12	6 Mos.	erect	Pansy	4-8	C E F	10-15	10-12 Wks.	clump
Calendula	12-36	D	10-14	12-14 Wks.	bushy	Petunia	10-24	D E F J	18-20	10-12 Wks.	bushy
Campanula	18-24	F	8-15	10-12 Wks.	bushy	Phlox	10-18	A B C F I J	20-25	8-10 Wks.	bushy
Candytuft	6-18	B F I	5-10	8-10 Wks.	bushy	Poppy	18-36	B	20	12-15 Wks.	erect
Centaurea	18-36	A B C D E I J	5-20	3-4 Mos.	erect	Portulaca	4-6	A D E F J	18-20	6 Wks.	spready
Chrysanthemum	24-36	A E	5-20	8-10 Wks.	bushy	Salvia	12-42	A	15-25	3-4 Mos.	bushy
Celosia	12-36	D E H	20-25	10 Wks.	bushy	Scabiosa	18-30	I	18-20	2-3 Mos.	bushy
Cosmos	36-60	A	5-15	10-12 Wks.	bushy	Stocks	12-24	I	5-15	12-14 Wks.	bushy
Coreopsis	18-36	A B D	10-20	4-5 Mos.	bushy	Schizanthus	18-36	C E	20-25	6-8 Wks.	bushy
Dahlia, Dwarf	14	F	10	3-4 Mos.	bushy	Sweet Pea	36 or more	K	15-20	10-12 Wks.	vine
Delphinium	36-72	L	15-21	3-4 Mos.	tall	Sweet William	12-24	F	10	12 Wks.	bushy
Digitalis	30-48	F	10-20	3-4 Mos.	erect	Verbena	6-12	E F J	8-10	12 Wks.	spready
Dianthus	4-15	F I	5-10	12 Wks.	bushy	Wallflower	12-18	I	5-12	2-3 Mos.	bushy
Eschscholtzia	10-12	C D F	5-12	12-15 Wks.	bushy	Zinnia	12-36	A F	5-10	6-8 Wks.	bushy

In all the world, NO FINER FLOWER SEEDS THAN OURS!



PETUNIA, All Double



LARKSPUR, Ruby



MARIGOLD, Sunkist



COSMOS, Dazzler



PETUNIA, Glow

GARDEN SUPPLIES

BIRD HOUSES AND FEEDERS

Window Bird Feeders—Provides an opportunity to study your bird companions from your window. Ideal for shut-ins and a real form of companionship for any person who is fond of birds.

Bird Houses—A great deal of pleasure can be derived from the birds that will be attracted to your yard by putting out a bird house or two. We carry many types and styles for bird lovers to choose from.

WILD BIRD SEED MIXTURE

Feed your feathered friends the year round with this tempting mixture. All types of wild birds relish this seed. Don't forget to give them plenty in the winter months when food is scarce.

FLOWER HOLDERS

Dome Type Nev-r-Tip. Heavy cast alloy, non-rusting. 1 3/4 in. diameter, 35c; 2 1/2 in. diameter, 45c; 3 3/8 in. diameter, 70c.

Pin Type Nev-r-Tip. Constructed with a heavy cast alloy base supporting needle-pointed, solid brass pins closely arranged. Round, 1 1/2 in. diameter, 35c; Round, 2 1/4 in., 50c; Round, 3 1/8 in., 90c.

GARDEN GLOVES

Garden Gloves—Protect your hands—wear gloves in your garden! Canvas or leather, in sizes for men and women.



Only \$1.25

Stony Brook GARDEN LINE

Keep your garden neat. Make lawn edges and vegetable rows as straight as the proverbial die. Rust-proof, aluminum spool with 150 feet of line on strong, waterproofed, brightly lacquered stakes. A handy garden help and an ideal gift for a gardener friend.

GARDEN HOSE

VISIT OUR STORE for our newest offerings. Garden hose is now available in good quality and quantity. Ask about new, improved hose reels, too.

LABELS

Pot or Garden Labels (Wooden)—Used for marking plants in pots or seed flats.

4 in.	60c per 100
6 in.	75c per 100
12 in.	\$1.95 per 100

Wood Tree Labels, Wired. Painted wooden labels equipped with wires, for marking trees or shrubs; also used extensively for labeling dahlia tubers.

100	1000
3 1/2 x 5/8 in.	\$0.75 \$4.25

PLANT BANDS

Square bands will hold almost twice the number of plants as round pots of the same size. Facilitate handling when transplanting. 2 in. size, packet of 30, 25c. (Ask for prices on larger sizes and quantities.)

PLANT SUPPORTS

Bamboo Stakes—Green, pencil thickness.

	Per 100	Per 1000
2 ft.	\$1.40	\$ 8.25
3 ft.	1.75	11.50
4 ft.	2.25	16.95

Dahlia or Garden Stakes—Wooden—Painted green. Strong and durable. Almost rot-proof. Will last several seasons. For supporting dahlias, young trees, etc.

	Doz.	100
4 ft.	\$2.15	\$14.25
5 ft.	2.75	17.50
6 ft.	3.25	21.75

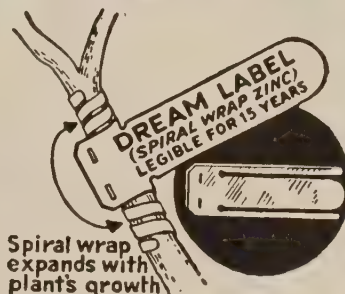
POTS AND SAUCERS

Standard Earthen Flower Pots. A wide range of sizes, from 2 1/2 in. to 12 in. diameter.

Earthen Flower Pot Saucers. 3 in. to 12 in.

Red Paper Pots. Made of water-proofed paper. Excellent for growing seedlings or for packing plants for shipment. Nicely finished and long lasting. 2 1/4 in. to 6 in. diameter.

DREAM PLANT LABEL



Spiral wrap expands with plant's growth

The newest, best, most permanent and economical plant and pot label ever devised. Your notations actually etched on metal. Weather and fire proof. Attached in 30 seconds to roses, azaleas, trees, shrubs, vines and plants. Records facts for many years. Etching ink and writing applicator supplied with every package. Can't cut bark. Expands as plant grows.

"KIT" size, 24—4" Zinc LABELS, one oz. of Etching Ink (enough for 200 labels) and a writing applicator, 85c.

"50 UNIT" size, 50—4" Zinc LABELS, one oz. of Etching Ink and applicator, \$1.50.

"1000 NURSERY" size, 1000—4" Zinc LABELS, 5 oz. of Etching Ink and applicator, \$19.00.

TYING MATERIALS AND DEVICES

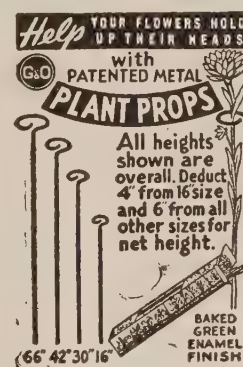
Raffia, Natural. A palm-fibre used for tying plants, bunching vegetables, weaving, and basketry. 1/2-lb. pkg. 65c. In braids (uneven weights) just as pulled from the bale, 90c per lb.

RAFFIA—Green Dyed—The best tying material for plants or other purposes requiring a strong fibre tie. Also used for basket making. 85c per lb.

PLANT TIES—Dark green tapes with wire reinforcing that makes perfect plant tie. A twist of the wrist and the plant is tied. Used by vegetable and market gardeners for staking and bunching. 7 in. 250 for 50c.



METAL PLANT PROPS



(a) Just hook 'em in—the job's done.

(b) Support Flowers, Vegetables better.

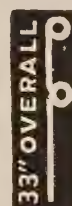
(c) Termite and rot proof. No Rag Ties.

(d) Baked in garden green enamel.

(e) So simple a child can place.

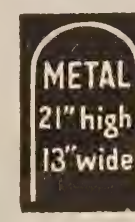
(f) Processed stiff steel of varying thicknesses to suit required support.

16" size, 55c doz.; 30" size, \$1.10 doz.; 42", \$1.35 doz.; 66", \$2.25 doz.; 78", \$3.30 doz.



FENCE RODS

Handy 1/4" diameter sturdy "jig-gers" to protect, keep dogs and children from damaging plants, etc. Run rope or wire through loops and "cradle up" bushy plants. Green enameled. Price \$1.35 per dozen.

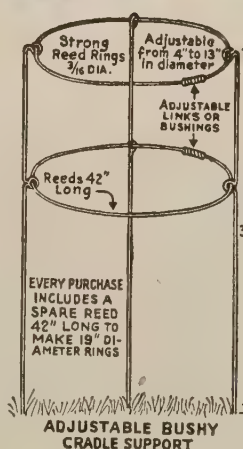


WICKETS

METAL 21" high 13" wide

4 ft. end to end, 1/4" diameter, 21" high by 13" opening. Green enameled. No prongs to tear or scratch. Keeps traffic away. Markers for sidewalk lawns. 50 different practical garden uses. Price \$1.65 per dozen.

ADJUSTABLE BUSHY CRADLE SUPPORT



Support for Peonies, "Mums," Tomatoes, Shrubs, etc., adjustable from 4" to 19" diameter. Double rings of thick rattan reeds. Lasts for 5 years. 3 sturdy steel green enameled 39" high rods with double eyes. Will prove a revelation to old time gardeners. Parts assembled in 2 minutes. So simple for storing. Reeds can't cut or burn stems. Price, complete in shipping carton, 65c.

'GRO-QUICK' ELECTRIC SEED BED HEATER

- "ROOT CUTTINGS IN 6 DAYS"
- "SEED UP IN 30 HOURS"
- "CUT GERMINATION TIME BY 3/4"
- "TRANSPLANT 2 WEEKS SOONER"

These enthusiastic reports from users tell what **GRO-QUICK SOIL HEATING CABLE** will do for you. Send today for testimonials and free, new instr. sheet with plans. For hotbeds—cold frames—unheated greenhouses—plant benches—for early plant starting in open ground. Operates from household current. **JUNIOR 40' Cable,** 200 watt with thermostat for 3x6 bed or 20 sq. ft. ... **\$5.35** **SENIOR 80' Cable,** 400 watt with thermostat for 6x6 bed or 40 sq. ft. ... **\$6.95**

WEED-WAND—the Spot Weed Killer

Kills 2,000 weeds with a cent's worth of 2,4D. Just press the end of the Wand on the weed—and it's good-bye weed! Automatic capillary wick action dispenses 2,4D without waste. No stooping, no spraying. Price \$1.00.

HOW? WHEN? WHERE? WHY? . . . in Plant Feeding

As every gardener knows, good seed alone can't make a successful garden. No matter how good the seed, it needs proper feeding. Like any living thing, it must be nourished.

As seedsmen, we do everything in our power to bring you the finest of seeds. We select seeds with the right heritage, with the inborn qualities that are needed to win out in the battle every growing thing must fight.

But once our good seed is in your hands, the rest is up to you! So—in your plans to get the best possible results from our good seed, consider carefully the information on plant feeding which we give you here.

Actually, plant feeding nowadays is a rather simple, easy job. While plants need many different elements of food for best growth, all these elements can be provided by one complete balanced plant food such as Vigoro. Without odor or muss, the modern balanced plant food takes care of all the usual plant needs of the garden—and does it inexpensively.

As to the questions of "how, when, where and why"—most of the information you need can be told in a few words. The basic routine of plant feeding for the home garden and lawn is this:

For LAWNS:

Follow these 3 steps . . .

1. Check to see that grass is dry!
2. Apply evenly 4 pounds of complete plant food per 100 feet of area, either with a spreader or by hand.
3. Soak the plant food into the ground immediately after applying.

If water is not available merely work the plant food off blades of grass with back of rake. NOTE: If plant food is applied early, before growth starts, steps 1 and 3 do not apply. Early thaws and spring rains work the plant food into the soil.

For FLOWERS, VEGETABLES, BERRIES . . .

Apply complete plant food at the rate of 4 pounds per 100 square feet of area before seeding or setting plants. For established perennials apply around plants or along both sides of row early in Spring and at six to eight week intervals.

For TREES . . .

Make a series of holes 12 to 18 inches deep with a 2" soil auger or a pointed stick under the drip of the branches. Figure the plant food need per tree by measuring diameter four feet from the ground and allowing 3 pounds of complete plant food per inch of diameter. Fill holes with a

mixture of half plant food and half soil or sand.

* * *

As to your choice of plant food:

We recommend VIGORO because of its unexcelled balance and its long record of unfailing reliability.

New gardening aids by the makers of Vigoro

Gardeners in our area are getting a lot of help from two other gardening aids now presented by Swift & Company, the makers of Vigoro.

These new essentials are EndoPest and EndoWeed.

EndoPest provides the wide range of protection most gardens need against chewing insects, sucking insects and fungus disease. It comes ready to use in a patented dust gun package. Also available in large economical packages for use in standard dust guns.

EndoWeed is improved selective lawn weed killer. It kills over 100 weeds, roots and all. And it is easy to apply with the new EndoWeed Side Spray that applies diluted EndoWeed to the side while you walk. No pumping . . . no wet feet. Ask us about these valuable gardening aids. You'll find them a real help in making your gardening easier—and more successful.

VIGORO... complete, balanced plant food

Develops humus in lawn soil!

Vigoro helps develop large root systems. Each year as part of the old roots decay, humus (organic matter) forms in the soil . . . dark, fertile! Your soil becomes more capable of sustaining your lawn through every season . . . a better storehouse for moisture and plant food.



Nourishes the whole plant!

Vigoro extends its benefits to blooms, stems, and roots. Gives good color to foliage—promotes quick growth and makes roots strong. It also strengthens stems, increases size and heightens color of blooms—promotes better general health of plants.



PLANT FOODS

ALUMINUM SULPHATE—A material used in creating acid soils necessary for successful culture of Azaleas, Rhododendrons, and similar plants.

BONE MEAL—All-purpose fertilizer, rich in the two principal plant foods—nitrogen and phosphoric acid.

COW MANURE—Fine and dry. Heat-treated to kill all weed seeds. Excellent for garden, lawn and greenhouse. Absolutely weedless. Builds up the soil and feeds plants in nature's safe way.

FRUITONE—The remarkable hormone spray that stops pre-harvest drop of fruit. Sprayed on flowers of tomatoes it makes a high percentage of the crop **SEEDLESS!** Also beneficial on beans and on flowers.

HORMODIN POWDER—A powerful help for transplants and root cuttings. Use it on house, garden, and greenhouse plants, shrubs, evergreens. (See display below.)

HUMUS—One of the best soil conditioners. Makes soil more workable and helps it hold moisture. Not a substitute for fertilizer, but an excellent companion for it. In convenient sized packages.

HYPONEX—Grows bigger and better house plants, flowers, vegetables, lawns and trees in poorest soil—even in sand, cinders, or water. Doesn't burn. Clean, odorless, soluble powder. 1 oz. pkg., 10c; 3 oz. pkg., 25c; 1 lb., \$1.00; 10 lbs., \$8.00.

LIME (Hydrated)—Sweetens sour soil for lawns, and clover. Is used as a reducer and in combination of many insecticides; for whitewash, deodorizing.



Grows bigger, better house plants, flowers, vegetables, lawns, and trees in poorest soil—even in sand, cinders or water. Results sure. Doesn't burn. Clean, odorless, soluble powder. 1 oz. makes 6 gallons.

	Retail
1 oz. pkt. (packed 72 to case)	10c
3 oz. can (packed 36 to case)	25c
7 oz. can (packed 24 to case)	50c
1 lb. can (packed 12 to case)	\$ 1.00
10 lb. drum, makes 1000 gals.	8.00
25 lb. drum, makes 2500 gals.	15.00
50 lb. drum, makes 5000 gals.	25.00
100 lb. drum, makes 10,000 gals.	40.00

NEW LIFE FOR POTTED PLANTS, GARDEN FLOWERS & VEGETABLES

PLANTABBS put new life and vigor into all plants, both indoor and out. You can have beautiful ferns, geraniums, begonias, ivy, *African violets*, gardenias simply by feeding them **PLANTABBS**.

VEGETABLES, too, grow vigorously—produce big, early yields when given an extra boost by these **PLANT FOOD** tablets. Easy to use. Clean, white, odorless—will not burn tender plants. **Results or money back.** Four sizes—25c, 50c, \$1, \$3.50.



Fulton's PLANTABBS

LEGUME INOCULATION—Just as necessary for garden peas and beans, lima beans, sweet peas and lupines as for alfalfa, clover, etc. The nitrogen-gathering bacteria build up the soil, increase your yields.

INOCULATION is the cheapest form of crop insurance. Packages from the 10c garden size up to 5-bushel size.

NITRAGIN—Restores and maintains soil fertility. This original legume inoculator contains billions of efficient nitrogen-gathering germs, builds up the soil. Dated to insure freshness.

NITRATE OF SODA—Very quick source of nitrogen. Hastens maturity of crops. Should not be applied until plants are well above ground.

NO-SEED—Hormone spray. Prevents blossom-drop on Tomatoes, greatly increasing crop. Also causes high percentage of seedless fruit.

PEAT MOSS—Fine for garden mulch, as it conserves moisture. When incorporated in the soil, it promotes growth and supplies humus, which is very essential for growing plants. Fine winter protection for lawns; also as a mulch on strawberry, perennial beds, roses, evergreens, etc.

PLANTABBS—Clean, white odorless plant tablets for indoor or outdoor use. See below.

ROOTONE—You can help cuttings to root faster by dipping them in the hormone powder, Rootone, before planting. Percentage of successful rooting is increased remarkably by this new treatment.

ROSE FOOD—A balanced combination of organic ingredients, selected for the particular "make-up" and sequence availability that roses need. Improves the color and size of your roses.

SHEEP MANURE—An economical and effective balanced plant food. Excellent for lawns, gardens and general use. Most extensively used of animal manures in feeding of lawns and gardens. Weed-free and rapid in its action. Supplies an abundance of humus and all the essential plant-food elements.

SUDBURY SOIL TEST KITS

Do your own soil testing! Kits are simple, practical, easy to use. Let you determine just how to fertilize and lime for best results. **Complete kit, good for 20 individual tests, \$2.00.**

Earlier Tomatoes

WITH NO-SEED BLOSSOM-SET

NO-SEED sets the blossoms chemically, prevents them from falling, thus produces ripe fruit 1 to 4 weeks earlier. Helps peppers, cucumbers, eggplant, squash, beans, and berries, too.

20 to 40% greater yield
You get over 90% blossom-set with this remarkable hormone spray. Resulting increases in yield of early crops are amazing, often as high as 40%!

Not only more yield, but many seedless tomatoes and larger fruits with improved flavor! Tested by Dept. of Agriculture, University Experiment Stations, etc.
½ gal. size, 60c; 1 gal. size, \$1.00; 4 gal. size, \$2.50.



SUPER PHOSPHATE—Aids plant nutrition and assists the plant to assimilate other ingredients. An efficient fertilizer element for lettuce, truck crops, cereal crops and alfalfa.

TRANSPLANTONE—Remarkable new Vitamin-Hormone stimulant effective in reducing transplant shock, and wilt of all kinds of plants or shrubs. Also effective in bringing about earlier maturity on tomatoes, lettuce, celery, peppers, tobacco and cabbage.

VIGORO—The complete plant food. Supplies all the elements growing things need from the soil. Because it offers such complete nourishment, Vigoro helps produce greater yields of finer flavored, more nutritious vegetables. Produces lovelier lawns and flowers. Clean and odorless.

ROSE-FOOD

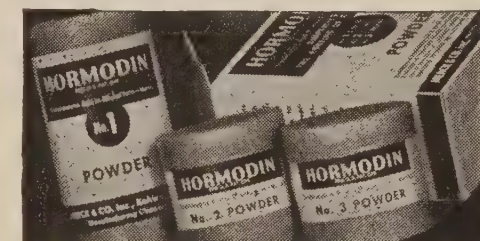


... at last, a real organic, no-filler fertilizer, **ESPECIALLY FOR ROSES!**

You can't feed roses a "good - for - everything" commercial food and get the color, size of bloom and stock you want! G & O Rose Food is specialized — a balanced combination of **ORGANIC** ingredients—selected for the particular "make-up" and sequence availability that roses need. **TRY IT**—and see what a difference it makes!

The largest selling specialty food in America—g r a d u a t e d with top honors from the largest rose growers.

Same prices as last 5 years
1 lb., 20c; 5 lbs., 65c; 10 lbs., \$1.25; 25 lbs., \$2.65; 100 lbs., \$9.60.



ROOT CUTTINGS WITH HORMODIN POWDER

Reg. U. S. Pat. Off.

This Hormone Powder produces better roots—faster! Simply dip moistened stems in Hormodin Powder and place in usual propagating medium. For house, garden, and greenhouse plants use Hormodin Powder No. 1; also available as Powder No. 2 for woody types, and Powder No. 3 for evergreens.



ROOTONE

Reg. U. S. Pat. Off.

The Plant Hormone Powder

This nationally known hormone powder makes cuttings root faster and more successfully. It stimulates seed germination so that rooting is heavier and you get a better stand of seedlings. Endorsed and used by leading growers everywhere. **Trial packet 25c—2 oz. jar \$1.00—1 lb. can \$5.00.**

FRUITONE

REG. U. S. PAT. OFF.

FRUITONE, the hormone spray for stopping premature drop of fruit, flowers, and leaves. Sprayed on flowers of tomatoes or beans, it produces better set, larger crop, and high percentage of seedless tomatoes. Makes Christmas greens hold their leaves longer. **2/5-ounce packet, 25c. 2-ounce package, \$1.00. 12-ounce can, \$5.**

TRANSPLANTONE

Reduces shock and wilt when plants are moved. Produces earlier maturity on tomatoes, lettuce, celery, peppers, tobacco and cabbage. Used on plants, shrubs and trees it encourages growth and bloom. One teaspoonful of powder makes 10 gallons of solution. **Trial packet 25c—1 oz. can 50c—3 oz. can \$1.00—1 lb. can \$4.00.**

Naturain

"Right as Rain"

April showers anytime of year

-with Naturain, the marvelous new method for watering lawns and gardens. Adjustable from a 25 ft. spray for lawns to a 2 inch trickle for seedlings. No constant shifting . . . no water waste. Connects in a jiffy. 5 foot units weigh only 12 oz. Primary unit, \$2.95; second units \$2.49 each.

GARDEN TOOLS . . . How, when, where

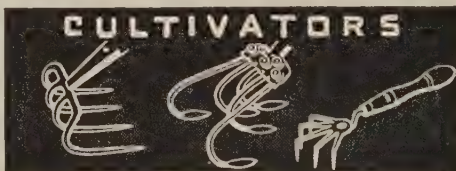


Consider the "onion" hoe

Every gardener needs a good hoe, and preferably two. While the regular field or garden hoe has millions of friends, the square top onion hoe will do more types of work, weighs less and still do everything the field hoe will. This onion hoe has a blade less than two inches high, hence it does not move a mass of soil. Soil flows over it easily, reducing the effort needed to use it. Because of its narrow width, the end can be used to thin plants in the row. The steel scuffle hoe is a tool preferred by professional gardeners for weeding and mulching. With it, they can work backwards, so it is not necessary to walk over the soil already prepared. Because the blade lies flat on the soil and the dirt flows over it, much less force is needed than with even the onion hoe.

A matter of necessity

For deeper cultivation, the five-pronged garden cultivator with long handle will do practically everything a wheel hoe cultivator will, though not as rapidly. It is the logical tool for the smaller garden. It should not be used too late in the season, however, after plant roots have begun to spread out between the rows.



How long is a shovel?

The choice of a digging tool is a matter of personal preference, but those who have not used the long-handled, round pointed shovel should try this tool. Because of its long handle, it gives greater leverage, which means less work for the back and arms of the digger. While it is called a shovel and can be used for shoveling loose soil, it is equally good for spading and turning over the soil. Many professional gardeners use it as a cultivating tool for working under shrubs because they can shove it under like a scuffle hoe and cut off tall weeds that cannot be cut easily with a regular hoe.

Flat-head vs. bow end rakes

With end of the war, bow-end rakes are coming back. While more costly to make than the flat-head rake, they are so much more efficient that the latter should only be used when low cost is a factor. The bow-end rake has the weight balanced better, so is easier to use. Also, the bow adds flexibility and gives "spring" to the pull of the teeth.



Planks come in handy!

A garden "tool" not ordinarily thought of is a good solid board or plank. When working on soft soil, a 2"x12" plank several feet long can be used to stand on, and will avoid compacting the soil. During hot summer weather, when late vegetable seeds are sown, lighter boards are useful to cover the row. These keep in moisture, keep out heat and speed up germination. (Examine the row every day and remove at the first sign of growth.)



Two trowels are better than one!

A good trowel is an essential tool. A cheap trowel is money wasted: it will bend and break at just the crucial moment. Buy the best trowel you can afford: it will give you pleasure in use for many, many years. If you have only one trowel, it should be the wide type, big enough to dig a good sized hole for a tomato seedling. If much transplanting is to be done, the narrow bladed trowel is useful.

"PRICES

subject to change"

As is usual in seed catalogs, we must notify you that prices are subject to change without notice. We shall, of course, make every effort to maintain our listed prices. But we cannot promise to do it completely.

GARDEN SUPPLY PRICES NOT PREPAID

While prices quoted on garden seed include our shipping costs, this is not the case on our other lines. So, when ordering garden supply items by mail, please remember that shipping costs are EXTRA.

WEED KILLERS

Our weed killer department, as usual, is keeping right up with the times. And that's saying a good deal, nowadays, when miraculous developments in weed killing are coming so fast.

Ever since the new selective weed killers began to appear, we have kept

in close touch with leading authorities on this work. Therefore, we **KNOW** the new weed killers thoroughly, and can safely advise you about their use.

2, 4-D for the farm

Now that practically everybody is using 2,4-D preparations for lawn weed control, the 2,4-D spotlight is centered on farm uses.

Careful tests by Agricultural Experiment Stations have proved that 2,4-D, properly used, is one of the greatest of all recent farm developments. Everywhere, farmers are getting amazing results in time and money savings and increased yields.

We can help any user to plan wisely in using 2,4-D. Just ask us!

Other weed controls, too

For weeds that are not controlled by 2,4-D, we have all the other good killers you need, including:

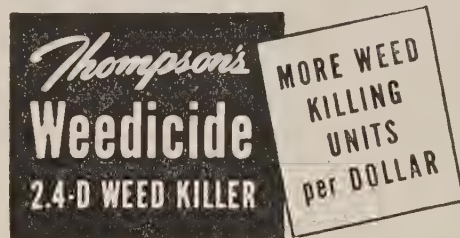
AMMATE WEED KILLER. Effective for control of poison ivy, ragweed, Canada Thistle, and other troublesome weeds.

CRAB GRASS KILLER (Seltox)—A selective Crab Grass Killer (containing PhenolMercuricAcetateSolubilized). The latest step forward in the chemical control of Crab Grass . . . the most troublesome of lawn weeds. **Seltox** not only kills but retards new Crab Grass growth. **Seltox** can be used any time during the growing season—from "seedling" stage to "mature" growth without harming lawn grasses.

Seltox is economical to use. The 16 oz. size makes 15 to 20 gallons and treats 1,500 to 2,000 square feet. Simply mix with water and apply with watering can or sprayer. (Complete directions on each bottle.)

8 oz., \$1.00; 16 oz., \$1.50; 1 qt., \$2.50; ½ gal., \$4.50; 1 gal., \$8.00.

NON-SELECTIVE WEED KILLER (Acme)—A quick acting arsenical product that destroys weeds and all other vegetation. The proper killer for weeds in drive ways, tennis courts, paths, and all areas which must be kept free of plant growth. Creates a sterile soil condition for a long period.



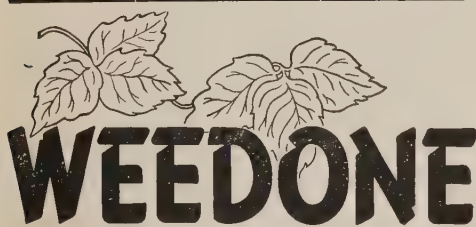
With Weedicide, you get more weed-killing results per dollar! It is more concentrated, has a more dynamic wetting agent, holds contact with plants longer. Kills even such stubborn weeds as the deep-rooted perennials, bindweed, etc. Invaluable for lawns, vacant lots, golf courses. Most economical 2,4D for farms.

LIQUID—2 oz. 25c; 8 oz. \$1.00; 1 qt. (¼ acre) \$1.75.

LIQUID CONCENTRATE—1 pt. (½ acre) \$1.35; 1 qt., \$2.35; 1 gal. \$7.60.

POWDER—8 oz. \$1.00; 1 lb. \$1.50.

Ask for prices and data on larger sizes.



The famous 2,4D weed-killer

Kills Poison Ivy, Poison Oak, Bindweed, Honey-suckle, Dandelion, Plantain, many other noxious weeds. Sprayed on leaves, it travels down and kills internally, right out to the root tips. Sprayed on lawns, it kills lawn weeds *without killing grass*. Safe for humans and animals. Does not hurt the soil or corrode spraying equipment. Just mix with water and spray.

6-ounce can 75c covers 1,000 sq.ft.
Quart \$2.50 covers 5,000 sq.ft.
Gallon \$7.50 covers ½ acre

Larger Quantities on Request

WEEDUST 2.4D

in the ready-to-use can

Kill those here-and-there weeds in your lawn with Weedust, 2,4D in powder form. Just shake directly from the can. No mixing or measuring or spray gun needed.

Big can 75 cents

Enough for 1000 weeds



WHY folks like to buy Garden Supplies HERE

We don't have any monopoly on the Garden Supplies we sell. Quite a few of them can be bought in many other stores.

But good gardeners still prefer to buy here, because this is a real garden store. Here every transaction is a friendly deal between gardeners. Here we try our best to deliver something more than just merchandise.

That's because we're **SEEDSMEN**—and proud of it!

**FOR GARDEN SUPPLIES,
SEE THE SEEDSMAN!**

PET SUPPLIES

Our Pet Supply Department really deserves a whole section of this book for itself. But this is our garden book, so the pets are crowded out.

If you're not already acquainted with our Pet Supply Services, we want you to know this one fact:

This is a good, safe, economical place to get Pet Supplies—because everything we sell is selected with the same care and caution as in our Seed Department. What better assurance could you want than that?



Amazing Relief for TORTURED Dogs and Cats

SKIN ITCH: Don't be too quick to blame fleas, mange, diet, if pets itch—scratch continually. 2 to 1 it's "FUNGITCH," fungus infection discovered by noted veterinarian, Dr. A. C. Merrick. Much like athlete's foot, it itches painfully—soon develops dandruff-like scales or mouldy-smelling brownish-edged sores around tail, on paws, back or underbody. Dr. Merrick's SULFODENE applied externally stops the itching in minutes—clears up scales and sores in a few days. Generous treatment \$1.00.

EAR CANKER: If pet repeatedly rubs ear on floor, etc., shakes head or holds it in stiff, unnatural way, examine ears carefully. If hot—sensitive—musty-smelling, you know it's ear canker (otitis). Apply Dr. Merrick's **EAR CANKER Creme** at once—snip tip off handy gelatin capsule—squeeze Creme into each ear. It contains wonder-drug, Tyrothricin. Works swiftly to relieve pain, remove causes and promote healing of ear canker. All 10 capsules in package seldom needed. Only \$2.00 per package.

INSECTICIDES AND FUNGICIDES

ARSENATE OF LEAD—The standard insecticide for controlling practically all leaf-eating or chewing insects. Spray or dust, 1 to 2 tablespoonfuls make 1 gallon spray.

BLACK LEAF 40. Nicotine Sulphate 40% solution for controlling aphids (plant lice), thrip and other soft bodied sucking insects. 1 teaspoonful makes 1 gallon.

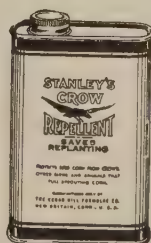
Spray
with
**BLACK
LEAF
40**



Aphids (plant lice), leafhoppers, leaf miners, mealy bugs, lace bugs, most thrips, young sucking bugs and similar insects can be controlled.

An ounce makes 6 gallons of spray effective on aphids. Full directions with package—A quick, sure, economical control for these insect pests. Just a little spread on roosts kills poultry lice and feather mites.

1 oz. Bottle, 36c; 5 oz. \$1.05; 1 lb. \$2.42; 2 lb. \$3.92; 5 lb. can \$7.40.



STANLEY'S CROW REPELLENT

Protects Seed Corn

from Crows, Pheasants, Blackbirds, Larks and all other corn-

pulling birds and animal pests, such as Moles, Gophers, Woodchucks, Squirrels, etc.

1/2 Pint	1 Pint	1 Quart
—enough for—	—enough for—	—enough for—
1 bu. seed	2 bu. seed	4 bu. seed
60c	\$1.00	\$1.75

Manufactured only by CEDAR HILL FORMULAE CO., New Britain, Conn.

CALCIUM ARSENATE—Arsenic and lime. A cheap quick-acting poison for potato bugs and other leaf-eating insects.

BORDEAUX MIXTURE. Standard copper fungicide for controlling black spot, mildew, blight, leaf-curl, scab and other fungous diseases on flowers, fruits, vegetables and other plants.

CERESAN—Effective in controlling covered smut and stripe of barley, oat smuts, and bunt or stinking smut of wheat. A pound treats 32 bushels.

CYANOGAS "A" DUST. Calcium cyanide for killing rats, moles, gophers, etc. Gives off deadly gas but leaves no poisonous residue afterwards.

CYANOGAS ANT KILLER—A. Dust. Powder to be blown into ant-hills, etc.

CYANOGAS G. FUMIGANT. The most effective fumigant for greenhouse pests such as white fly, thrips, aphids, etc. Fumigation is started at dark by scattering the Cyanogas on the walks after which the house is closed for the night.

D. X. SPRAY. An economical spray for both sucking and chewing insects. Kills aphids and Mexican bean beetles; harmless to human beings. 1 1/2-oz. bottle, 45c; 8-oz. bottle, \$1.45.

MILDEW SPRAY—A strong liquid spray for control of mildew, leaf spot and black spot on rose bushes, flowers and many other kinds of foliage. Leaves a thin insoluble film of copper, preventing fungous attack, without unsightly residue.

PRUNING PAINT—A specially prepared liquid paint containing copper for treating wounds left by pruning, storms, or accidents, to prevent such diseases as European canker fungus, hard rot, and certain other fungi. Forms a protective shield while the tree is naturally overcoming the shock.

All Prices Subject to
Change Without Notice.

**INSECTICIDE PRICES ARE
NOT POST-PAID. Postage
or Express Charges Extra.**

LIME SULPHUR, Liquid—A dormant spray material against scale of all kinds. Dilute with cold water—1 gallon makes 10 gallons of spray.

LIME SULPHUR, Dry—A dormant spray to kill scale or use as a summer spray for control of fungus disease.

PARIS GREEN. An effective insecticide for control of chewing insects, particularly recommended for potato bugs.

POMO-GREEN WITH NICOTINE—A combined insecticide and fungicide for control of black spot and mildew on plants and shrubs, especially Roses. Does not discolor foliage.

RED ARROW GARDEN SPRAY. Concentrated Pyrethrum and Rotenone extract containing soap, spreader and sticker. Harmless to animals.



THE COMPLETE DORMANT SPRAY

Scalecide cleans up overwintering insects on fruit trees, shade trees, shrubs and evergreens. Spray before growth starts in Spring. Qt. cans 85c; Gal. cans \$2.00.

Kill More Kinds of Insects

D-X Spray contains rotenone, pyrethrum and DDT for the best protection the garden has ever had. Spray flowers, fruits, and vegetables. Dilutes 1 to 400, economical. 1 1/2 oz. 40c; 1/2 pint can \$1.50.



ANTS DRIVING YOU CRAZY? ANT-B-GON's the answer! Four to eight dispensers are enough for average home. Easy to refill. Ants feed from "wick"... can't get inside. For Argentine and Sweets-eating ants. Set of four 1-oz. Dispensers, 70¢. Ant poison to refill dispensers: 4-oz. Bottle, 25¢. 1 Pint, 60¢

ORTHO Garden Spray Set. For use against more prevalent Garden Insects.

Set contains 4-ounce bottle of **EXTRAX** Insect Spray, **GREENOL** Liquid Fungicide and **VOLCK** Oil Spray. Makes 25 gals. Multi-Purpose Spray, \$1.85

APPO Cutworm Bait. A new poisoned Apple bait. Kills Cutworms, Strawberry Root Weevil; also Vegetable Weevil, Slugs, Snails. 1-lb. Carton, 45¢

ORTHO Rose Dust. Complete rose and flower garden dust. 8 oz., \$1.00 — 1 lb., \$1.25

PEST-B-GON Insect Spray. Contains 20% DDT. Kills Beetles, Worms, Thrips, Ants, Leafhoppers; also Houseflies (as screen paint), Mosquitoes, Fleas. 4-oz. Bottle, 65¢. 1 Pint, \$2.00

BOTANO Garden Dust. For use against many insects and diseases. Includes Rotenone and Pyrethrum. One of the safest multi-purpose dusts that can be used. 10-oz. size, in handy garden duster, 60¢

A Bouquet and a Brickbat for Man's Best Friend...

Brickbat: **SCRAM** Dog Repellent, to keep dogs away from shrubs, flowers, lawns, store fronts, porches, etc. Easy to use. Does not harm animals. 8-oz. Shaker, 50¢

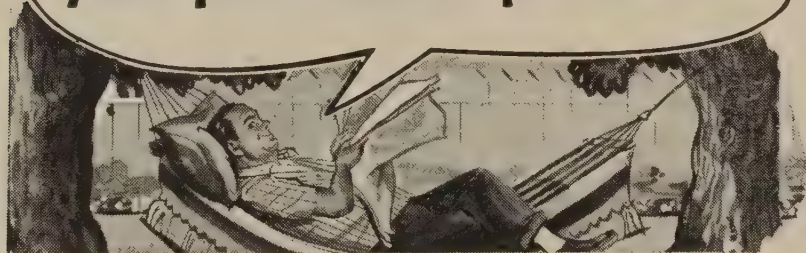
Bouquet: **ORTHO-PET** Flea Powder is a potent flea killer—one or two treatments a month do the trick! Use on cats, too.

1 1/2-oz. Puffer Package, 35¢



Ask for a free copy
of our complete pest
control chart

Let **ORTHO** simplify
your pest control problems!



SCALECIDE. Reliable spray for scale and soft-bodied sucking insects. A soluble miscible oil that mixes instantly with cold water.

SEMESAN. Effective in controlling damping-off, scab, hard rot, etc.

SEMESAN BEL. For use on potatoes. Controls such seed-borne disease organisms as scab, rhizoctonia, and black-leg. One pound treats 60 to 80 bushels of seed.

SULPHUR, DUSTING. For controlling powdery mildew, blight, black spot, rust and most rose diseases.

SULPHUR, WETTABLE. An improved sulphur which can also be used as a

liquid spray. 98% passes through 325 mesh screen.

TRI-GEN SPRAY. Three way treatment for roses and most vegetable plants. Used and highly recommended by leading rosarians. Controls insects and fungus, assuring healthy, strong and vigorously blooming roses.

MISCELLANEOUS

CHAPERONE, LIQUID. Outdoor dog repellent that won't dissolve in rain. Harmless, long lasting. Ends the dog nuisance in your garden.

CHAPERONE, POWDER. Indoor dog repellent, that keeps your dog off furniture. Almost odorless to humans. A fine help in training your dog.

NEW CONTROL FOR SOIL INSECTS and Fairy Ring

CX, the New compound of Hexachlorocyclohexane and Carco Spray, takes care of an amazing range of pests, including some that no other insecticide handles as well. CX is a sure control for root maggots and other soil insects . . . eradicates "Fairy Ring" and many other insects. Also a perfect defense against moss scale and lichens, making a perfect dormant spray for shrubs and trees. Shrubs drenched with CX in late winter or early spring are often completely rejuvenated. Tests checked by competent entomologists fully support these statements. CX is easy to use, too! Just a sprinkling can or even a cup does the job, if no sprayer is available. Quart (makes 25 gal. of spray), \$1.95; Gallon, \$4.95. Larger quantities, on request.

CX

D. D. T. PRODUCTS for Farm and Garden

DURADUST No. 50

Contains 50% Wettable DDT

The strongest, finest DDT powder science has yet been able to produce! Duradust No. 50 is toxic when eaten by the insect or when it comes in contact with the insect's legs or body. Its killing power endures. FOR CROP SPRAYING OR DUSTING—controls codling moth, oriental fruit moth, leaf hopper, flea beetle, psyllid, potato bug, potato aphid, plant bug, Jap beetle, cabbage worm, caterpillar, thrip, rose chafer, and many others. Suitable for all plants except vine crops. FOR LAWN SPRAY—controls cutworms, ants, earwigs, sow bugs, chinch bugs. FOR WALL SPRAY—most economical in barns, milk houses, hog sheds, etc. Also excellent FOR CATTLE SPRAY, DIP, OR DUST. 1 lb., 90c; 4 lbs., \$2.25; 50 lbs., \$26.80.



RED RIVER POTATO MIX

Contains 9.5% Wettable DDT, 15.1% Metallic Arsenic, 25.7% Metallic Copper. For years the recognized leader, now even better. Shows 25% and more increases in yield when compared to older methods in repeated tests. Controls all insects which eat the leaves, suck sap, irritate leaf surfaces or cause disease infection. Acts as a stomach poison and by contact. High copper content gives better blight prevention, produces green, healthy foliage. Use as spray or as dust. 1 lb., 55c; 4 lbs., \$1.75.



ACME GARDEN DUSTS AND SPRAYS

ACME ALL ROUND SPRAY

For roses, azaleas, other flowers, shrubs, vegetables, vines. A new, modern, carefully formulated multi-purpose product designed to provide with one application the best available protection against both insects and fungi such as rose chafer, azalea flower spot, thrip, black spot, downy mildews, leaf spot, many rusts, Japanese beetle, leafhopper, flea beetle, aphids, cabbage worm and many others. Suitable for dusting as well as spraying. 1 lb. Carton 95c; 4 lb. Carton \$3.35.



ACME TOMATO DUST

A general garden insecticide and fungicide with special emphasis on complete tomato protection. Controls early and late blight as well as horn worm, fruit worm and flea beetle on tomatoes as well as on cucumbers, beans, cabbage, potatoes and many flowers such as hollyhocks, asters, roses, azaleas, etc. 1 lb. sifter, 50c; 4 lb. pkg., \$1.05; 50 lbs., \$11.00.



ACME ROTENONE GARDEN GUARD

Controls the widest variety of chewing and sucking insects of any insecticide on the market today. Non injurious to humans, pets and animals. Use as dust or spray to control aphids, bean beetles, asparagus beetles, horn worm, tarnish plant bug, cabbage worms, current worms, rose caterpillars, blister beetles and other common insects. 4 lb. pkg., \$1.25; 50 lb. bag, \$13.30.



ACME EMO-NIK

A complete contact insect spray combining active nicotine with a high quality summer oil emulsion. Excellent in control of scale, red spider, mealy bug, white flies, rust mites, aphids, mildew and similar garden pests. Practically odorless when sprayed. 4 1/2 oz. 37c.



ACME WETTABLE DUSTING SULPHUR

Controls mildew, leaf spot, black spot and rust on roses, chrysanthemums, snapdragons, carnations and other foliage and red spiders on evergreens. Use as a dust or spray. Also excellent as a chigger repellent. 2 lbs., 42c.



STOP GARDEN BUGS

This Sure, Easy Way

This amazing new tool for home gardeners will protect your garden against most insects and fungus diseases. The handy, 36" Bug Blaster gun is loaded with 2 lbs. of dust, ready to use on your flowers and vegetables. Formula contains DDT, Rotonone, Sulfur, etc.

- No Mixing
- No Stooping
- No Bother



PRODUCT OF
SHERWIN-
WILLIAMS
RESEARCH

Controls
Aphid,
Thrip,
Rose
Chafer,
Japanese
Beetle,
Mexican
Bean
Beetle,
Cabbage
Worm,
Tomato
Fruit
Worm, and
many others.

ONLY
\$1.98
COMPLETE

BUG BLASTER

DUST & GUN ... ALL-IN-ONE

GARDEN TOOLS

The next time you get into your tool shed or garage, or wherever you keep your garden tools, look them over! Try to remember how long it has been since you first brought them home. Then—if you want a real thrill—come into our store and see what the modern tool designers have done for you!

Here is a very brief outline of tools now available. But, better yet, come in and see for yourself.

CULTIVATORS, Speedy—4 sharp curved tines, 4 1/3 ft. handle.

Norcross—Adjustable steel teeth.

Hand Cultivator Weeder—3 or 5 prong.

FORKS, Spading—4 tines, D handle, light and heavy weight.

Hay Fork—Bent handle, 3 or 4 tines.

HOOKS, Grass (Sickles)—Various styles, well balanced designs. Wood handles.

Potato Hooks—4 broad tines, tumbled.

SHEARS, Grass—Pinch-proof handles.

Hedge Shears—8 or 9 inch blades.

HOES, Field or Garden—Various styles.

Onion Hoe—Square top pattern.

Scuffle Hoe—8 inch blade; straight handle.

Warren Hoe—Pointed steel head.

KNIVES, Asparagus—10" with V-shaped point.

Budding, Propagating, and Pruning Knives. See our selection.

Edging Knife—Half-moon blade.

SCYTHES, Grass, Weed and Bush—Best crucible steel. Visit our display!

SHOVELS, Square Point—Long and D handles.

Round Point Shovel—Long D handle.

RAKES, Steel, Curved Tooth—Straight handles; teeth on head 1/4" thick.

Steel, Straight Tooth Rakes—Level head.

Wood Rakes—Rigid and strong.

Bamboo Rakes—Fan shaped, strongly made.

Steel-Broom-Rake—Flat, spring-steel teeth.

PRUNERS, Tree—8 ft., 10 ft., 12 ft.

Pruning Shears—Again available in several styles.

Flower Gathering Shears—They cut the stem and hold the flower for you.

SPADES, Square Point—Flat blade, D handle.

TROWELS, All-Steel Garden—Made of one piece of rigid steel; shaped ventilated handle.

Transplanting Trowel—6" blade of solid steel.

WEEDERS, Hand—3 steel prongs; short handle.

Lawn Weeder—Curved forged-steel blade.

Weeder and Hoe Combined—A labor saver.

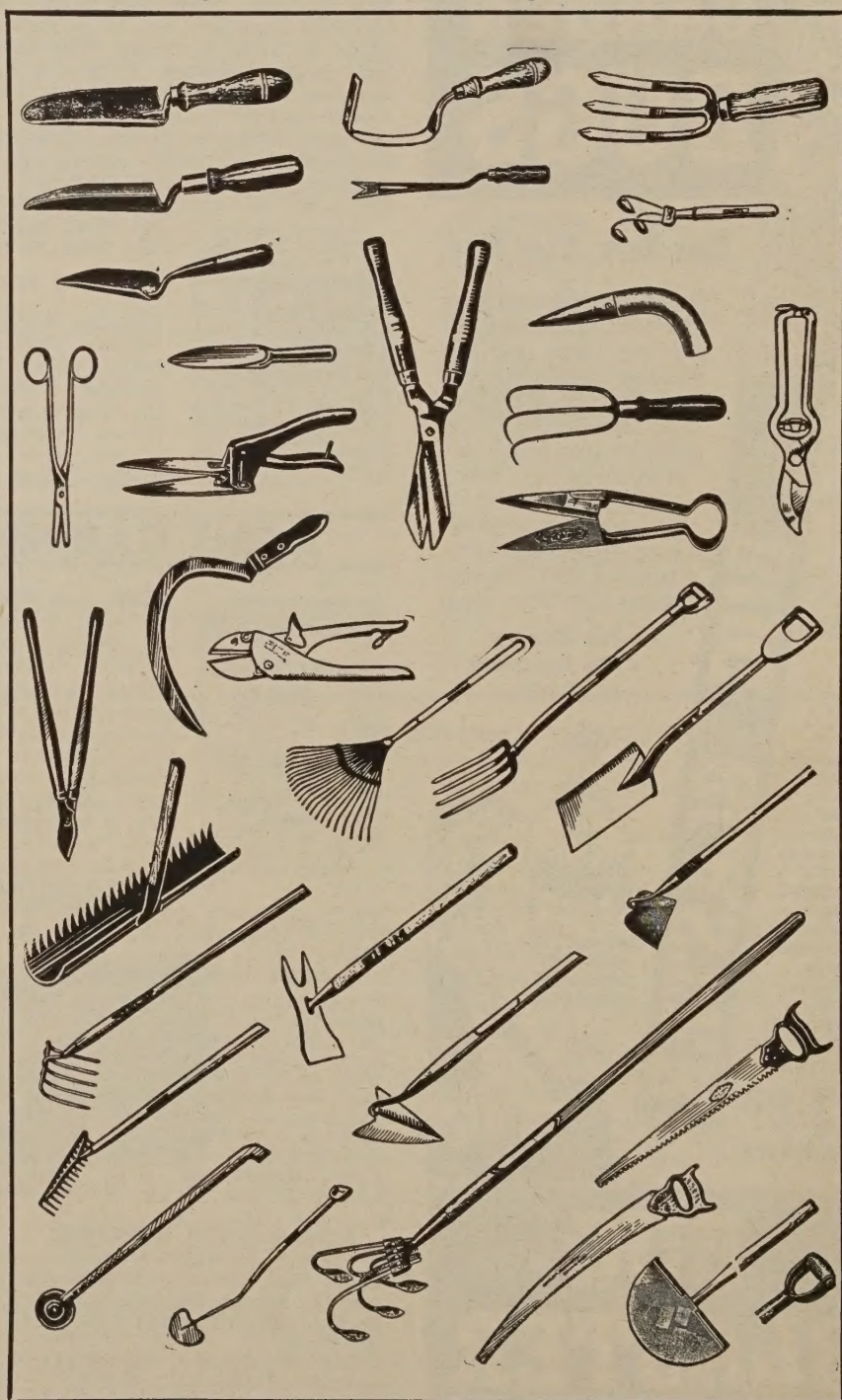
Dandelion Weeder—V-shape design.



The modern, easy INSECT CONTROL

Your garden hose is your insecticide sprayer, when you use an ARNOLD! Just attach this highly efficient mixing and spraying device in place of your regular hosenozzle—turn on water and spray anywhere from 3 to 25 feet. Cartridges fit into chamber and dissolve slowly, as water passes thru, giving you the correct control solution. No pumping, no guesswork. Thousands in use nationally. Sprayer, \$5.50; cartridges, 35c or 12 for \$4.00. (A product of the Garden Hose Spray Co., Inc., Cambridge, Mass.)

IN THE GARDEN, AS IN THE SHOP
a good workman deserves good tools!



Famous No. 99

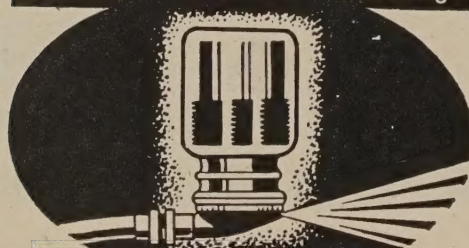
AEROIL

FLAME GUN

Kills all weeds
with fire

Endorsed by leading agricultural authorities. 2000° F. flame kills stalks, seeds and roots. Destroys insects, cracks rocks, burns out stumps... 99 other uses. Burns only 6% kerosene and 94% air. OUTFIT INCLUDES 4 gal. all-welded tank, brass pump, 60 lb. air gauge, 7' oil resisting hose, bronze valve, and seamless steel removable coil burner. Nothing else to buy. Guaranteed for a full year. (Spray attachment if desired, \$3.50 extra.) PRICE AEROIL No. 99 SENIOR FLAME GUN, \$22.

Greener Lawns...Less Watering



FERTILIZING WITH GAT SPRAYER

NO BURNING • NO ODORS

NO WASTE \$1.45 GLASS JAR
NOT INCLUDED

DOBBINS *Superbilt* BIGHEAD SPRAYER



No. 446

Heavy galvanized steel tank, seams electric welded. BIGHEAD opening at top, making it an easy sprayer to fill and clean. Patented self-lubricating pressure seal valve plunger gives more air per stroke. Trigger-quick spray lock for continuous spraying. For all spray solutions, including DDT and weed control chemicals. Tank— $7\frac{3}{8}$ "x $22\frac{1}{2}$ ", 4-gallon capacity. Pump— $1\frac{3}{4}$ "x $1\frac{1}{2}$ ", seamless brass. 2' brass extension rod with adjustable nozzle. Sprays at any angle.

DELUXE GARDEN SPRAYER



No. 8

High quality, 2-gallon sprayer of exclusive design. Oval tank, comfortable aluminum handle. Light weight. Recommend for DDT solution, weed control chemicals, and all insecticides and disinfectants. Fun-L-Fill top. Galvanized steel. Self-lubricating pressure seal valve plunger. Patented cam lock. Tank: $10\frac{1}{4}$ " long, $6\frac{3}{4}$ " wide, 10 $\frac{7}{8}$ " high. Pump: $1\frac{3}{4}$ " diameter, $8\frac{1}{2}$ " long. Discharge Equipment: 3 feet of $\frac{3}{8}$ " high-pressure spray hose. Automatic shut-off. Trigger quick lock.

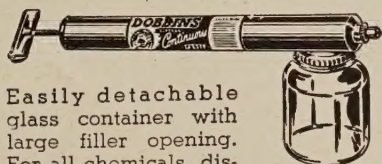
FUN-L-FILL SPRAYER



No. 216

Fun-L-Fill for convenience and economy in filling. The heavy galvanized steel tank is electrically welded at all seams, making a stronger leak-proof and pressure-proof unit. Patented self-lubricating pressure seal valve plunger—more air over stroke. Quick air release protects operator. Tank— $7\frac{1}{8}$ "x $21\frac{1}{4}$ ". $3\frac{1}{2}$ gallon capacity. Pump— $1\frac{3}{4}$ "x $1\frac{1}{4}$ ". 24" curved brass extension. Brass nozzle cap. Automatic shutoff with trigger-quick spray lock.

CONTINUOUS HAND SPRAYER



Easily detachable glass container with large filler opening. For all chemicals, disinfectants and insecticides free from sediment. Patented brass nozzle. Tank—Glass, 4" diameter, $4\frac{1}{4}$ " high. Pump— $1\frac{1}{2}$ " diameter, 14" long, heavy steel.

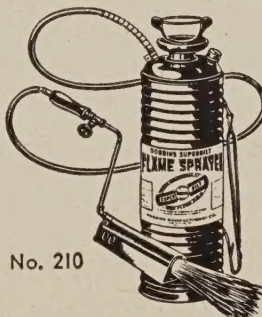
Sprayers and Dusters HAND DUSTER



No. 132

The most efficient hand duster ever made. Highly recommended for applying Pyrethrum, Rotenone and Derris Root dust insecticides. A uniform discharge down to the last particle of dust. Tested and proved for all garden and field crops. Has 2 ft. extension, patented two-way cap for dusting top and underside of leaves. Pump: 4" diameter, $7\frac{1}{2}$ " stroke, with self-lubricating pressure seal valve plunger. Capacity 1 lb.

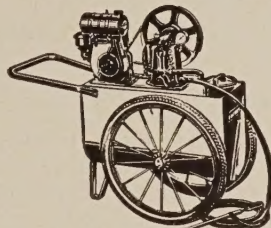
FLAME SPRAYER



No. 210

Kills weeds and grasses. Burns rubbish and brush. Disinfects poultry houses, and yards, rabbit hutches. Heats and thaws. Flame temperature $2,000^{\circ}$ F. Average fuel consumption 1 gallon per hour. Heavy galvanized 4-gallon steel tank with electric welded seams, tested for high pressure. Heavy steel welded torch. Brass burner with a needle-valve control.

POWER SPRAYER



No. 4240R

A portable, high-pressure, light-weight spray outfit capable of handling all spray jobs for the individual owner and grower. Tank capacity is 25 gallons. Equipped with $1\frac{1}{2}$ GPM pump which develops 250 lbs. pressure. Only $18\frac{1}{2}$ " wide, $12\frac{1}{2}$ " of $\frac{3}{8}$ " high-pressure hose. Adjustable spray gun.

FLAT SPRAY NOZZLE CAP



No. 60

Interchanges with regular nozzle cap on all sprayers. Especially desirable for applying DDT solutions and weed control chemicals. Fine and coarse discs furnished.

PEST EXTERMINATORS

"Their Last Meal"

ANT-X JELLY BAIT (Thallium)—For destroying all species of ants—SIMPLE TO USE—Not a repellent but a food bait that ants eat and carry back to the nest. Destroys entire colony. "THEIR LAST MEAL." 35c and \$1.00 sizes.

ANT-X ANT TRAPS (Thallium)—A safe, sanitary method for controlling ants in house and garden. Attracts and destroys both sweet and grease-eating ants. Cannot be opened by children or spilled by pets. May be placed inside ice-boxes or other food containers without contaminating foods. "THEIR LAST MEAL." 25c.

RAT-NOTS—A non-poisonous prepared bait containing genuine RED SQUILL. Safe, sanitary! Rats are attracted to RAT-NOTS because of their tempting odor. "THEIR LAST MEAL." 25c and \$1.00.

RAT-TU . . . contains Antu, the marvelous new rat killer.

Here are two remarkable new poisons, both made with the recent discovery, Antu, most successful rat poison ever made available:

RAT-TU with 25% Antu, for tracking—sprinkle it in runways and burrows. Rats track through it and are fatally poisoned when they lick their feet, 60c.

RAT-TU with 5% Antu, for baiting—use it in their drinking water or for bait. Sifter-top can, 35c.

MOUSE-NOTS—Easily hulled, treated seed bait, appeals to the finicky taste of mice. Spread in places mice frequent. "THEIR LAST MEAL." 25c and \$1.00 sizes.

MOLE-NOTS—Life-saver for lawns, flower and seed beds. Sure death to bulb-eating, root-destroying moles. Safeguards bulbs at time of planting. "THEIR LAST MEAL." 35c and \$1.00 sizes.

NOTT'S ANTU RAT PASTE (5% Antu)—For big, well-fed, hard-to-catch rats which dodge cats and traps, and are finicky in their eating habits. "THEIR LAST MEAL." Handy tubes, 35c and \$1.00.

DOG-CHECK—An effective proven curb to canine habits, needed by all whose neighbor's dogs "visit" and wither flowers, shrubs, hedges. One spraying usually lasts two to three weeks—unaffected by light rains. 60c and \$1.00 sizes.

WEED-NOTS

Containing Sodium Salt Monohydrate of 2-4-D packaged in the popular "Not" form. Drop one "Not" in $1\frac{1}{2}$ quarts of water and you have an excellent hormone weed killer.

BAND-DIT

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SAVES PRECIOUS TREES
ALL PREPARED AND EASY TO APPLY—
A SIMPLE METHOD OF BANDING TREES



A STICKY BAND
WITH DDT

FOUR CONVENIENT
LENGTHS

2 FT. TREES UP TO
 $7\frac{1}{2}$ " IN DIAMETER - 50c

$3\frac{1}{2}$ FT. TREES UP TO
13" DIAMETER - 75c

5 FT. TREES UP TO
19" IN DIAMETER - \$1.00

8 FT. TREES UP TO
31" IN DIAMETER - \$1.25

Made by Universal Tree Band Co., St. Paul, Minn.

WHY IT PAYS TO BUY THE BEST IN SPRAYERS

It's safe to say that the garden is never better than its spray equipment. Good sprays AND GOOD SPRAYERS ARE ABSOLUTELY VITAL.

We offer a complete service in this important department—not only a complete range of sprayers, but also plenty of helpful information about their use.

Cheap sprayers are never a bargain. They do not last and they waste material. They do not give the fine mist necessary to coat economically. They do not have enough force for the use of contact sprays. That's why you need good sprayers and dusters—built to do the work thoroughly, and to last.



**A FINE LAWN IMPROVES BEAUTY
and increases property value too!**

Let Isbell Seed Store help you! The complete value and beauty of your home can be fully realized when it is placed in the setting of a fine lawn with good landscaping.

For years it has been our business to provide exactly the right kind of shrubs and lawn seeds for the soils of this area. Isbell's Central City Lawn Seed brings you a velvety-smooth carpet of deep green grass. For those difficult shaded areas use our Shady Spot Lawn

Seed especially prepared to handle the problem.

Our nursery stocks are No. 1 Grade carefully selected for quality and adaptation to this area.

Lawns, shrubs and flowering plants need life-giving food. For the best results we recommend Vigoro because it supplies the vital nourishment needed to attain the finest growth and beauty.

For the essential facts in planning and maintaining your lawn and landscape easily and efficiently—

Come in and talk it over

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